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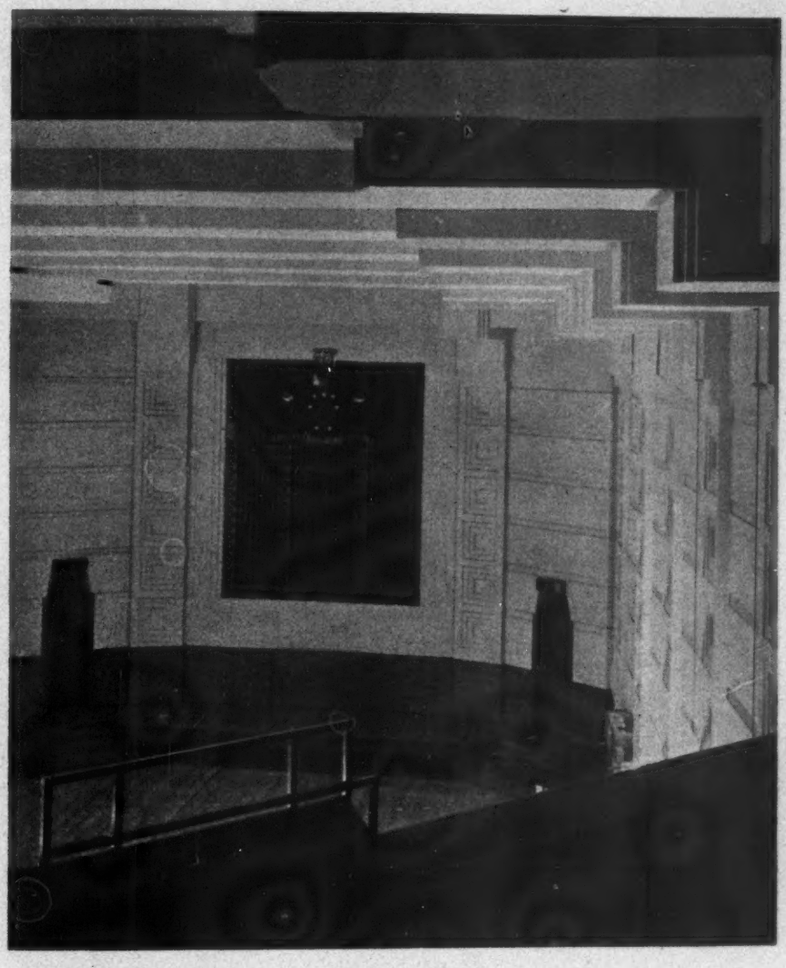


Broadcasting House, Portland Place, W.: Concert Hall from Gallery.

LIEUT.-COL. G. VAL MYER, F.R.I.B.A., Architect.

MEETINGS

SATURDAY, *May* 21.

Institution of Municipal and County Engineers. Yorkshire District Meeting. At the Council Chambers, Dewsbury. 2.15 p.m.

MONDAY, *May* 23.

Architectural Association. Mr. G. A. Jellicoe on "Gardens." 8 p.m.

MONDAY-FRIDAY, *May* 23-*June* 10.

Architectural Association. Exhibition of Garden Design. 10 a.m. to 10 p.m.

TUESDAY, *May* 24.

Illuminating Engineering Society. Mr. E. Marrison on "The Work of a Public Lighting Department." At 15, Savoy-street, W.C.2. 7 p.m.

THURSDAY, *May* 26.

Institution of Structural Engineers. General Meeting. 6.30 p.m.

Architecture Club. Twenty-first Dinner. At Claridge's Hotel, W.1. 7.30 p.m.

London and National Society for Women's Service. Mr. H. B. Creswell on "That the Displacement of the Architect and the Craftsman by the Engineer and the Industrial Worker is much to be deplored." At 46, Tufton-street, S.W.1. 8.15 p.m.

FRIDAY, *May* 27.

Royal Sanitary Institute. Mr. R. B. Berry on "Slum Clearance." At the Guildhall, Gloucester. 4.45 p.m.

Town Planning Institute. Mr. G. L. Pepler on "Town Planning and Transport." At the Institution of Electrical Engineers, Victoria Embankment. W.C.2. 6 p.m.

SATURDAY, *May* 28.

Hampshire and Isle of Wight Architectural Association. Annual General Meeting. At Portsmouth.

Institution of Municipal and County Engineers. North-Eastern District Meeting. At the Royal Hotel, Whitby. 1 p.m.

St. Paul's Ecclesiological Society. Visit to St. Matthias's Church, Goldsmith-square, Stoke Newington, and the Old and New Parish Churches of Stoke Newington.

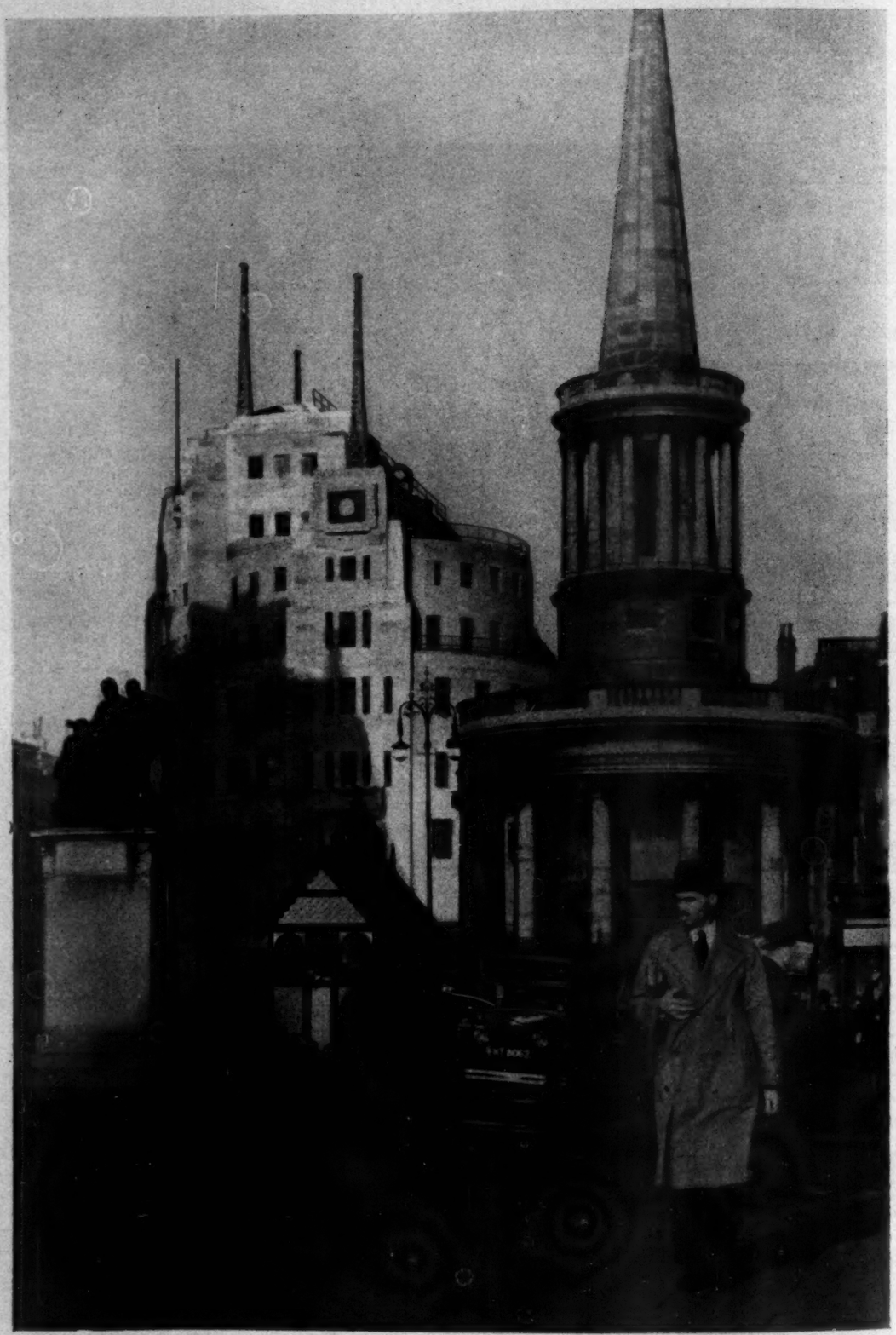
MONDAY, *May* 30.

Royal Institute of British Architects. Mr. L. Sylvester Sullivan on "City Office Buildings." 8 p.m.

Chartered Surveyors' Institution. Annual General Meeting. 5 p.m.

MONDAY-FRIDAY, *May* 30-*June* 3.

Institution of Electrical Engineers. Summer Meeting. At Harrogate.



Broadcasting House, Portland Place, W. Showing Relationship to All Souls', Langham Place.

LIEUT.-COL. G. VAL MYER, F.R.I.B.A., Architect.

ELEVATIONS AND PLANS

THE R.I.B.A. New Headquarters Competition has for many months presented a problem to a great number of competitors as to the relative importance of elevation and plan in a particular instance. In this case it was to a great extent a matter of attempting to anticipate the jury's mind in its bearing upon the subject, and as is so often the case the competitor has handicapped himself by attempting the solving of a problem as he thinks others will require it, rather than as he believes honestly himself it should be solved. This defect in the competition system can hardly fail to persist so long as human nature remains as it is and architectural practice retains that fickle element of chance upon which so many livelihoods depend. The impression that this somewhat tentative frame of mind has pervaded the outlook of a good many of the competitors must strike any thoughtful observer of the exhibition.

But we have dealt very fully with our impressions of this particular problem and its solution, and we do not propose to elaborate what has been already said upon it. We propose merely to study this abstract question of elevation and plan in its bearing generally upon architectural design. We have been told so often that elevations must be the inevitable culmination of a good plan in fine architecture that we have become prone to accept this as an axiom which needs no further thought and certainly no argument. Whether this axiom we have been taught is incontrovertible or not, there is no established fact which will not stand the test of argument and discussion. The point really seems to be whether an elevation should be a revelation or a mask. Should it declare what is within, or should it sometimes cloak the interior with reserve?

There may be one answer that will fit all cases, but the probability is that circumstances will alter cases, and in no case is greater care needed than in the design of a street front. In such a problem the designer has to consider many factors. He must respect the dignity and the harmony of the street for one thing, and this is a factor which can have little bearing upon the internal economy of the building; it is an entirely external consideration, which must yet receive its measure of recognition in the design. Then there is the general characteristic expression which the building should display to the public to denote its identity. This also has only a secondary influence from the plan, and in a street front may be said to be mainly an external influence.

Finally, there is that welding together of internal and external order and seemliness which is the chief problem for the architect. Here is a balance of influences which definitely relates plan to elevation in a true architectural solution, and it is here that the architect meets his major difficulties. However his mind may turn to the importance of outer appearances, he cannot forget that practical politics set their definite limits upon outer manœuvres. Windows can be beautiful features, and ranges of windows mark a pleasant sense of rhythm. But they are first and foremost means of admitting light into the interior of the building, and must be conveniently placed both laterally and vertically. Doors can offer a rich emphasis to a facade, and may centralise or balance the parts of an elevation. But they are primarily means of ingress and exit, and must serve the practical central zones of the building, and must be of practical width and height consistent with convenience and dignity. It may well happen, and generally does happen, that the ideal plan, with its ideal arrangement of doors and windows, does not offer the ideal balance of solid and void, the ideal weight and strength of support which the designer desires in elevational design.

At best he may compromise the conflict with some skilful articulation in his external or internal treatment, or in both. At worst he may have to settle the choice whether external or internal perfection is to be sacrificed. He may have to settle in his own mind whether it is more valuable to have a perfect display towards the public, or a perfect æsthetic equipment in the building. If he has to view this in a commercial light the problem becomes simpler. Will his clients gain more by an advertisement which millions will see than by a less prominent advertisement which fewer will see, though those few may be more closely interested? In cases where the commercial element is less insistent it may become merely a matter of artistic conscience. Shall architectural perfection be offered to the world or to the household?

It is a difficult choice which would tax the wisdom of Solomon to judge; but given no violent offence to the internal economy of the building, we believe that most architects would consider that perfection in elevation would carry a greater artistic weight than exact perfection in internal treatment. By this we do not mean an unsatisfactory plan, but a minor sacrifice of internal regularity.

To make quite sure that no misunderstanding may impute to us more than we intend to say, we would suggest the instance of fenestration. A good plan is, first, a convenient and simple arrangement of rooms, compartments, construction and circulation. It suggests definite centres and axes. The main ones will certainly express themselves on the outside; but there are minor ones which have a definite natural place upon the plan, which may express themselves uncomfortably from without. These are the points where we believe most architects would decide to flatter the elevation, contenting themselves with a minor disorder within, which can often be satisfied by the mild subterfuges of design.

So it comes to this: that whereas the perfect building is a perfect plan expressing itself in perfect elevation, there are few things in modern life which approach perfection, and the case which will not behave itself in this ideal manner is more the rule than the exception. We are touching realities when we descend from the clouds and recognise this salient fact of architectural practice.

So far we have discussed the architecture of the streets where respect for outer appearances in regular order becomes a public duty; but there remains an even wider field of building on a smaller or less pretentious scale. We refer to the domestic work standing in comparative seclusion on detached building plots. In such positions the designer has a freer hand, being tied less rigidly by the lines and character of neighbouring buildings. It is true that some sense of neighbourliness and social decency must still be observed, but it is of a far less determining nature than that we have previously described. The element of self-advertisement also recedes in such work, so that the architect is faced with a problem which approaches more nearly the ideal conditions of architectural fitness, in which the form of the building may fit comfortably the facts of the plan. In such case, domestic convenience, economy and comfort determine the layout of the house, and these forms taking their natural shape, offer the designer ample scope for the interest with which they are expressed as a structure.

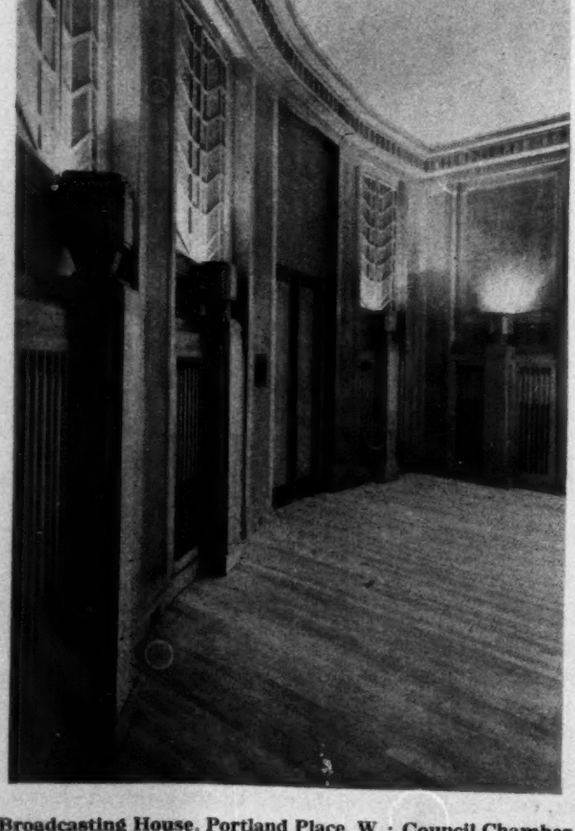
The elevations of such a building tell a story in which there are few secrets. There need be no attempt to disguise the placing of the principal rooms, the incidence of the staircase, or the attachment of the domestic wings and offices; and only so much balance and symmetry need be used as comes naturally within the layout to express a hint of individuality. Nothing in such an exercise need be forced, and the most successful domestic design is the one where everything happens comfortably and trimly, and nothing expresses the effort or contrivance.

We have attempted to express the relative values of the factors which rule the modern designer in his work. If we have succeeded in stripping from the real facts of the problem some of the rigid humbug with which such matters are sometimes discussed, we trust we have assisted our readers to pass sounder judgment upon work which comes before them for criticism.

NOTES

How to Cheapen Building. An event of some considerable importance to the building trade is the publication of the Second Interim Report of the Building Industry Council of Review. This report—more fully detailed on page 901—embodies the results of a detailed examination of the Time and Progress Schedule system of organising building operations, a system which has now been advocated over a number of years by certain informed members of the industry. It is very desirable that building costs should drop still further with a view to encouraging new building, but many experts believe that such reduction should not be achieved as a result of a "cut" in wages additional to the decrease which came into force in February. One method by which cheapened building may be gained is by standardisation of the components of building, and in this direction excellent work is being done by the British Standards Institution and by the Advisory Council for the Building Industry, the latter body particularly in steel structure research. Another factor which seems likely to result in lowered costs, if we may judge from the Council of Review report, is the Time and Progress Schedule which in operation has saved as much as a third over the ordinary time of construction, with consequent saving in capital charges, wastage of material and labour. The conditions of the operatives are also improved, through greater continuity of employment and correspondingly increased annual earnings. Every member of the building industry, from architect to operative, should read this Report. The cost of delays and waste, resulting under the old system from deferred decisions on important matters, has to be borne by the building owner, and in the case of public schemes ultimately by taxpayers and ratepayers. Consequently, since this system cannot be operated at its best without the full co-operation of the building owner, the adoption of a system under which wasteful cost is eliminated is not only a matter of technical interest to those engaged in the building industry, but is of the greatest importance to the whole community.

Rural Amenities. That control of buildings is very necessary in rural as well as urban districts is being fully realised now that so many small dwellings are springing up all over the country. In a charming little village in the west country we saw the other day a flagrant disregard of the amenities of rural surroundings where a small square building of the poorest sort has been built on ground which forms the salient point where two roads meet and remains a terrible eyesore in the view upwards through a well known and beautiful vale. It seems incredible that the owner should ever have been allowed to erect a building which is not only an eyesore in itself, but is an obstruction in a line of view which constitutes an attraction as a beauty spot. This is a case which should engage the attention of the Somerset Rural Improvements Association. It is, of course, only too likely that it has already attracted their beneficient attention but has been found beyond the power of improvement. The sight of it, however, impressed us with the way in which rural beauty has been menaced by the absence of any efficient control in rural areas.

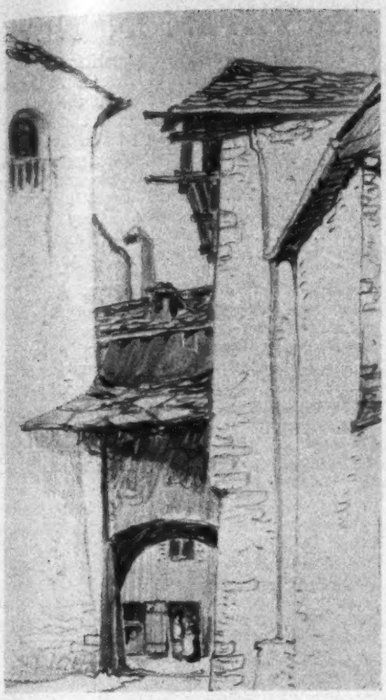


Broadcasting House, Portland Place, W.: Council Chamber.

Lieut.-Col. G. Val Myer, F.R.I.B.A., Architect.

The Architects' Unemployment Committee. Reference to this Committee and the work it is doing towards relieving distress amongst architects was made by Dr. Raymond Unwin at the Annual Meeting of the Architects' Benevolent Society, reported on page 903. "An important development during the year has been the formation of the Architects' Unemployment Committee which Mr. Webb has organised, and on which the R.I.B.A., the Architects' Benevolent Society, the Architectural Association and the Association of Architects, Surveyors and Technical Assistants are represented. . . . £2,800 has been received up to the present of which £1,800 represents donations and £1,000 subscriptions. Subscriptions average £300 a month. We are spending up to the limit of our income and are employing only a fourth of those who have applied to us for help. It is interesting to note that in America, where unemployment is even more serious than it is here, similar means of relief have been adopted. In Boston 658 men have been registered as unemployed among engineers alone, of whom 146 have been put to work through their relief bureau and 52 have been found work outside. A similar number of architects and architects' draughtsmen is affected and over there, as with us, they are using the occasion to get useful work done and are giving employment as we are in connection with Civic Surveys schemes, town planning and other schemes of public utility which fortunately in this country it is not necessary for us to develop."

The Local Government Congress. On Monday next, under the presidency of the Rt. Hon. Earl of Derby, K.G., the International Congress of Local Authorities commences a series of meetings dealing with various phases of local government. Delegates from all parts of the United Kingdom and from many cities abroad will be meeting together in conference, in order to exchange views and experiences in their respective spheres of activity, and during the week a number of diplomatic functions will take place, including a reception by the Government at Lancaster House on Tuesday evening, when the guests will be received by the Rt. Hon. Sir E. Hilton Young, M.P., Minister of



Chiomonti.

Health, and Lady Young. On Wednesday, the Chairman and Councillors of the London County Council entertain the visitors to tea at the County Hall. Everything, in fact, has been done by the reception committee to provide the delegates with a complete insight to civic life and government in this country, and, in addition to visits to many of the metropolitan boroughs, a number of tours have been arranged to towns in different parts of the country, where they will be received by the respective Mayors and Corporations. During the period of the Congress in London an exhibition is to be held at the Central Hall, Westminster, devoted to various aspects of local government as it affects the officials and members of local authorities. The exhibition, which will be open for four days, includes a range of modern public and private office equipment, together with various types of machinery, material and equipment used in modern highways construction and public works undertakings.

The Building Disaster at Lyons.

A CORRESPONDENT writes: "The building disaster at Lyons recently is a proof of the advantages in Great Britain of an efficient system of impartial surveyors, who are always on the look out for dangerous structures. Not two years ago a whole row of houses swept down a hillside at Lyons and 41 people were killed. I had visited the city a few months before and was told that owing to the weakening of retaining walls and the steep slopes on which many of the tenement dwellings were built during the last century in order to accommodate the increasing population employed in the silk industry, experts feared disaster. A whole row of houses collapsed in November, 1930, but even that warning has been disregarded. Last Sunday's tragedy is likely to be repeated again and again unless retaining walls are properly examined at regular intervals, and strengthened. If those who protest most against our building regulations and complain bitterly of our housing conditions were to spend a few hours in Lyons, they would be thankful to be British.

Exposure of Building Stones.

WE referred in a recent issue to tests made on building stones exposed on the roof of the Geological Museum in Jermyn-street. Certain notes were made by Mr. J. Allen Howe at the time of removal. Mr. Howe, in his notes, says "These tests were designed to compare the effect of exposure to the London atmosphere upon a few well-known building stones. The test blocks were provided for the purpose by the respective quarry owners and were placed on the roof of the Geological Survey Office, Jermyn-street, in the summer of 1911. Supports for the blocks and covers to protect all but one exposed face from the direct attack of the weather were made to the design furnished by the Science Committee of the Royal Institute of British Architects. Half the blocks were fixed to face south, and the other half facing the north. Various methods of measuring the amount of weathering were considered, including the insertion of platinum pins in the stone. The method finally adopted was that of photography, as it was felt that the difficulty of obtaining sufficiently accurate measurements would be too great in the comparatively short period of exposure of the stones. The thickness of the blocks was secured by means of callipers. Full-size photographs of the faces to be exposed were taken when the blocks were first set up and again in exactly similar circumstances in 1920, after weathering. At the same time, a small area of the face was photographed under magnification. They show very clearly the character of the weathering process in each type of stone."

G.W.Rly. Garden Villages.

THE Great Western Garden Village at Acton will shortly be completed. This railway has set an example of providing houses for its employees on sound lines, and the total number of dwellings provided is nearly 1,300. The two estates of the Great Western (London) Garden Village Society at Acton and Hayes, respectively, contain 376 and 386 houses. As soon as the final section of 28 houses is finished at Acton the estate will be complete, but at Hayes there is room for over 120 more houses. There are also garden villages at Plymouth, Truro, Penzance, the Severn Tunnel Junction, Caerphilly, Barry and Swansea. The societies have borrowed money up to the extent of 90 per cent. of the approved cost of building at 4 per cent. interest. Up to the end of last year over £600,000 had been advanced.

Strasbourg.

From sketches by MR. E. GUY DAWBER, A.R.A.

GENERAL NEWS

Professional Announcement.

Messrs. E. B. Hoare and M. Wheeler announce that they will change the address of their office from 22, Portman-street, Portman-square, W., to 15, Portman-street, Portman-square, W., on June 1, and will work in future in association with Mr. Melville Seth-Ward.

New Humber Bridge.

Hull City Council has now approved the new proposals for the construction of a pedestrian and vehicular bridge over the River Humber. The whole cost of the bridge will be met by the issue of £2,000,000 Five per Cent. Debentures.

The Segrave Trophy.

Apropos of Mr. T. P. Bennett's article on sculpture at the Royal Academy, published in our last issue, Mr. Gilbert Bayes writes as follows :—" I notice that my Segrave Trophy is described as being of gilt and bronze. The portions showing gold are not gilt, but actual gold—part cast, part struck, and part damascened gold—and it was this fact that formed part of the problem that I had to solve in carrying it out."

The Le Play Society.

The August programme of the Le Play Society includes the following arrangements :—A Historical Architectural Survey of East Anglia under Professor J. Holland Rose, Mr. Ian Hannah, M.A., and Dr. G. G. Coulton; a visit to Jugo Slavia, with the Kamnik-Julian Alps as the centre, and Mr. Davis, of the Department of Geography, Manchester, and Miss Tatton as leaders; an introductory study of frontier questions by Professor R. W. Seton Watson; St. Andrews, a City-Regional Study, under Mr. B. T. Hebert, M.A. (Oxon), with one of the University Halls as its centre of residence; the Cotswolds, a training course in Regional Survey, by Miss C. Simpson, B.Sc., and a " Student-Camp " in Luxembourg. Full particulars may be obtained from Miss Margaret Tatton, F.R.G.S., the Le Play Society, 56, Gower-street, W.C.1.

Incorporated Architects in Scotland.

At the monthly meeting of the Council of the Royal Incorporation of Architects in Scotland, held at 15, Rutland-square, Edinburgh. Mr. John Begg, F.R.I.B.A., F.R.I.A.S., of Edinburgh, late consulting architect to the Government of India, and now head of the School of Architecture, Edinburgh College of Art, was unanimously nominated as President of the Royal Incorporation for next year. The following members were elected :—Mr. W. J. P. Bryce (Edinburgh), as fellow; Messrs. F. G. Sturrock (Dundee), W. H. Kininmonth, J. W. D. Kelly, W. H. Sayers (Edinburgh), and J. M. Whalley (Glasgow), as associates; and Miss A. M. Drysdale (Crieff), and Messrs. S. R. Matthew, G. F. Gibson, J. E. Henderson (Edinburgh), and J. L. Somerville (Musselburgh), as students.

OBITUARY

Leslie Y. Harris, A.R.I.B.A.

We have regretfully to record the death of Mr. Leslie Youngman Harris, A.R.I.B.A., who had practised in Nottingham and London. Mr. Harris was in his 44th year.

Lord Ebury.

We regret to record that Lord Ebury has succumbed to injuries received in the hunting field in March. Lord Ebury, who was born in 1883 and was educated at Harrow, had a varied and romantic career. After an early training in metallurgy and mining engineering, he went out to Canada, eventually becoming managing director of the Norton Griffiths organisation in British Columbia. This was in 1912. He served during the war, being awarded the M.C. and bar, the D.S.O. and bar, and the Croix de Guerre with palms. He was directly associated with the building industry as President of the Advisory Council for the Building Industry, where his catholic knowledge and wide experience of both the industry and of commerce stood the Council in considerable stead. The vice-presidents and the chairmen of panels of the Advisory Council attended the memorial service held on Thursday at St. Margaret's, Westminster.

John Sutcliffe, A.M.Inst.C.E.

We regret to report the death on May 7, at the age of 62 years, of Mr. John Sutcliffe, Associate Member of the Institution of Civil Engineers,, Member of the Institution of Municipal and County Engineers, Fellow of the Royal Sanitary Institute and Borough Engineer of the Metropolitan Borough of Woolwich since July, 1915. Mr. Sutcliffe was responsible, in addition to his duties as Borough Engineer, for the erection of the New Eltham Library, the Maternity and Child Welfare Centre at Eltham, the development of the Council's housing estate, comprising 2,186 houses, including the making of the roads and laying the sewers, and the lay-out of another estate of approximately similar area to include 2,200 houses. He also designed and built by direct labour a covered market for the Council. He was a member of the Technical Committee for the amendment of the London Building Acts appointed by the Metropolitan Boroughs' Standing Joint Committee, and also of the Council of the Institution of Municipal and County Engineers representing the Metropolitan district. Both the Council and its staff will deeply regret the severe loss they have sustained by the comparatively early death of such a valued officer and friend.

James Watt.

We have to record the death at Catford, at the age of 75, of Mr. James Watt. Over 5,000 houses in Catford and South London were erected by Mr. Watt, who also built 25 picture palaces in various parts of the Metropolis. For 40 years he had been in business on his own account, but soon after coming to London as a young man from Aberdeenshire, where he was born, he acted as foreman with another successful Scotsman, the late Mr. James Laird, J.P. Mr. Watt's first cinema, one of the earliest erected in London, was in Sangley-road, Catford.

COMPETITION NEWS

R.I.B.A. New Premises Competition.

The Royal Institute of British Architects states :—In the announcement of the result of the competition for the design of the R.I.B.A. new premises the address of the authors of one of the third premiated designs, Messrs. Percy Thomas and Ernest Prestwich, was given as Cardiff. The correct designation should have been Messrs. Percy Thomas, O.B.E., F.R.I.B.A. (Cardiff), and Ernest Prestwich, M.A., F.R.I.B.A. (Leigh, Lancs.).

Designs for a Traditional Cottage.

The Incorporated Association of Architects and Surveyors has accepted an invitation from the Dominion Dairy Co., Ltd., of Aylesbury, to submit sixteen selected designs for a traditional English cottage in a rural setting, capable of being erected under modern by-laws. The promoters offer sixteen prizes of £21 each for the sixteen designs selected by the assessors, Sir Edwin Lutyens, R.A., P.I.A.A.S.; Mr. John Murray, F.R.I.B.A., F.I.A.A.; and Mr. Andrew Mather, L.R.I.B.A., F.I.A.A. A black and white perspective and unmounted sketch plans are required. The cottage is to be detached, and the cost should not exceed £1,200, exclusive of site, fees, drainage, etc. The competition is open to anyone normally resident in Great Britain and Ireland engaged in the study or practice of architecture. Designs must be delivered by June 16 to the Secretary, Incorporated Association of Architects and Surveyors, 1, Wilbraham-place, S.W.1. The copyright of the premiated designs remains in the joint names of the author and the promoters. The Dominion Dairy Co., Ltd., may commission a competitor (or joint competitors) to act as architect to supervise the erection of a cottage or cottages of the chosen design or designs at the recognised scale professional rates. Full details may be obtained from published regulations of the Royal Institute.

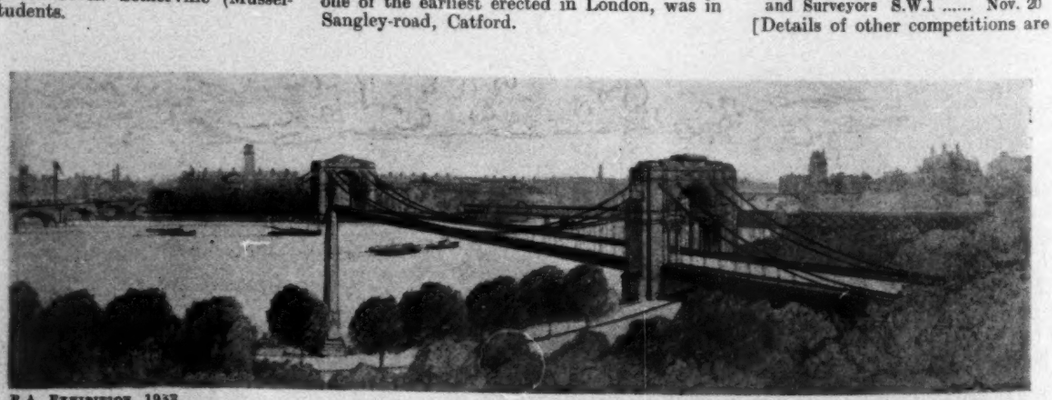
Eastbourne Grand Parade Scheme.

The following notice has been issued by the Royal Institute of British Architects :—Members of the Institute and of its allied societies must not take part in the above competition, and must not submit schemes for the Grand Parade Scheme, Eastbourne, because the conditions are not in accordance with the published regulations of the Royal Institute.

COMPETITIONS OPEN.

Designs from architects resident in Scotland for new advanced school, Inverness, for Inverness County Council. Assessor, Mr. J. D. Cairns, F.R.I.B.A. Winner to be appointed architect; premiums of £100 and £50 for 2nd and 3rd. Plans to Mr. R. Robertson, County Surveyor, Inverness	Particulars published in " Builder." March 4	Sending in date. May 24
Design for all-British house to cost £1,000 exclusive of site and architect's fees. Premiums of 50, 20 and 10 guineas. Designs to the organisers Incorporated Association of Architects and Surveyors S.W.1	Nov. 20	Sept. 1

[Details of other competitions are held over.]



R.A. Exhibition, 1932.

Sketch Design for a Suspension Bridge near Charing Cross.

By Sir Reginald Blomfield, R.A., PP.R.I.B.A.

CORRESPONDENCE

Waterloo Bridge and the English Bridge, Shrewsbury.

SIR,—Although the practice of architecture has taken me far from the banks of the River Severn, I feel as a Salopian, an "Old Salopian," and an architect, that I cannot allow Mr. Athoe's letter in your issue of March 18 to pass without comment. In the first instance, it would have been better if the bridge in question had been given its correct name. The old town of Shrewsbury is situated within a horseshoe formed by the River Severn, and there are two bridges of equal importance, one leading to England and the other to Wales, known as the English and the Welsh Bridge, respectively.

Mr. Athoe's letter refers to the English Bridge which prior to its recent desecration, was not only far the finer of the two architecturally, but one of the most beautiful bridges in Great Britain, forming a vital part of particularly lovely town and river views. It is sad, in a paper devoted to architecture, to find the official representative of an association of architects detailing the dry and unimportant details which are supposed to prove that this bridge as reconstructed has the qualities as a work of art that were admittedly possessed by John Gwynn's masterpiece.

One would expect that a gentleman in Mr. Athoe's position, when writing to the Press on a subject of this kind, would give some indication that he, or his Association, appreciated that into architecture there enters a little matter known as "proportion," and that you cannot alter drastically the proportions of a building or bridge without altering drastically its architectural value even if you retain, virtuously, its original stones and copy its original lamp standards.

The devastating alteration in this case is not merely the widening of the bridge (now more than twice its original width), but the drastic lowering of its rise from crown to extremities, which alteration alone has destroyed, and must destroy utterly, the charm and character of the original. Mr. Athoe's only attempt to explain away this vital difference consists of a statement that when 5 ft. of flood water is running the reconstructed bridge is "just as it appeared in the old days." Photographs of the original bridge and the bridge as it now exists would explain, far better than any words, exactly how far this statement of Mr. Athoe's differs from the real facts.

I have never heard that there is any intention to alter materially the existing rise from crown to extremities of Waterloo Bridge, and this being the case, Mr. Athoe's parallel between the reconstruction of these two bridges fails to convince. There is, however, one important point not mentioned by Mr. Athoe in which the problems of the English Bridge, Shrewsbury, and of Waterloo Bridge bear such a striking resemblance that it would be well worth while for the R.I.B.A Council to arrange, if possible, for some of the leading members of the L.C.C. and their advisers to visit Shrewsbury in order that this resemblance might be studied and fully appreciated.

The chief objection to the L.C.C. proposal regarding Waterloo Bridge is that it is useless to provide a materially wider bridge if it has to lead into the same, or practically the same, narrow and congested streets as before. This is precisely what has been done at Shrewsbury, and the result is well worthy of study on the spot. The streets of Shrewsbury are very narrow, hilly and tortuous, totally unsuited to carry any volume of through motor traffic. Within a couple of hundred yards of the English Bridge, and up one of the steepest hills in any town in England, a narrow and winding street leads to the centre of the town—itself a maze of narrow, hilly, winding streets, filled with pedestrians on market days and evenings.

No one in his senses wishes to retain ancient monuments that are an obstacle to essential improvements, but before a work of art is ruined or removed, surely it should be proved beyond any reasonable doubt that an important improvement will result. And surely, if it has been ruined, the fact should be frankly admitted, at least by gentlemen in Mr. Athoe's position, even if they defend its ruin on utilitarian grounds.

Some widening of the English Bridge (but to nothing like the extent that has been done) was probably necessary, although automatic signals might have obviated even this. No alteration in the rise of the bridge was necessary or even desirable. The original rise sounded a note of useful warning to the incoming motorist and detained him from bursting into the narrow and winding streets of the town at his average touring speed.

The proper solution in the case of Shrewsbury was a by-pass road around the town and a new bridge, and the large sum that has been spent on the desecration of Gwynn's bridge is not only a waste of public money, a reflection on the good sense of our generation, but has no doubt postponed indefinitely the construction of the much-needed alternative route. The English Bridge at Shrewsbury has been ruined beyond repair, a fact which we who loved the old bridge and its setting have to accept, but which we will never cease to deplore.

When, however, a wanton piece of vandalism is acclaimed as a satisfactory and creditable piece of work to be repeated when opportunity affords, then it seems time that a little plain speaking was indulged in by someone who knows the facts. Shrewsbury stands as a warning to-day to the L.C.C. and to all those who have traffic and bridge problems to consider, and it is for this reason I have ventured to take up so much of your space.

It would be interesting to know the opinion of Mr. A. E. Housman, that lover of Shropshire, and the author, long before 1927, of the following beautiful lines :—

"High the vanes of Shrewsbury gleam
Islanded in Severn's stream;
The bridges from the steepled crest
Cross the water east and west.

The flag of morn in conqueror's state
Enters at the English gate;
The vanquished eve, as night prevails,
Bleeds upon the road to Wales."

R. JACKSON, F.R.I.B.A.

Madras, S. India.

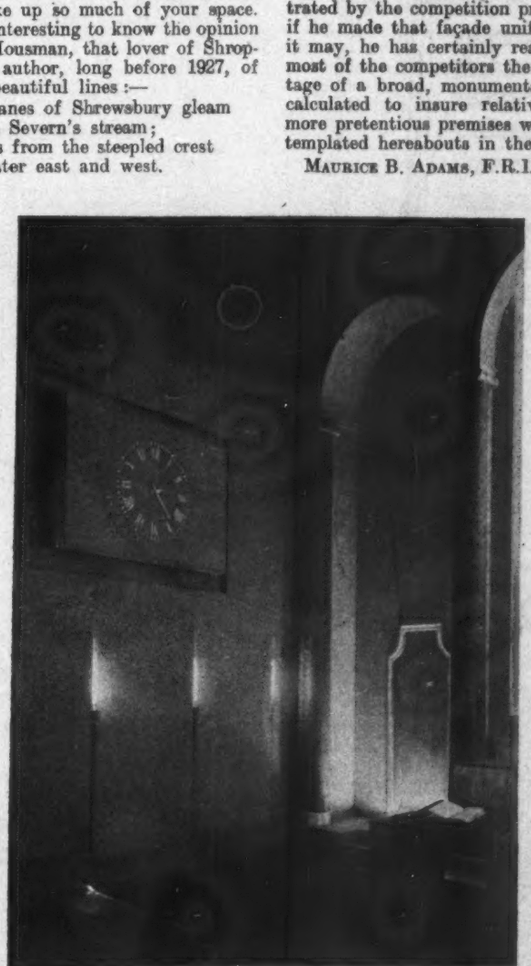
R.I.B.A. Competition Award.

SIR,—My experience extending over a half-century as a reviewer of architectural competitions may, perhaps without egotism, warrant my brief intrusion in support of the distinguished scheme chosen for the new headquarters of the Royal Institute of British Architects to be built in Portland-place.

Mr. G. Grey Wornum undoubtedly has won on the outstanding merits of his compact, well-balanced and ingeniously thought-out plans, enhanced by adroitly contrived sections insuring ample lighting and ventilation; likewise good emergency exits as well as avoiding loss of valuable space in needless corridors, spoiling so many of the schemes sent in. I can recall no previous competition more copiously contested, and never to my knowledge have the promoters affixed the names of all the authors of the exhibits. Visitors have thus been enabled sympathetically to study the proposals of their personal friends or examine schemes of famous competitors who failed.

I do not propose to intervene with further remarks beyond a word or two respecting the wisdom of recognising the overpowering size and character of "Broadcasting House," a veritable *pièce de resistance*, overshadowing the historic church of All Souls at the top of Upper Regent-street. I am aware that it has been suggested that Mr. Wornum might improve the Portland-place frontispiece, illustrated by the competition preliminary design, if he made that façade uniform. Be that as it may, he has certainly realised better than most of the competitors the enormous advantage of a broad, monumental simplicity well calculated to insure relative values amidst more pretentious premises which may be contemplated hereabouts in the near future.

MAURICE B. ADAMS, F.R.I.B.A. (Retired).



Broadcasting House, Portland Place, W.: Studio 3E (Religious Services).

Designed by MR. EDWARD MAUFE, M.A., F.R.I.B.A.

THE R.I.B.A. NEW PREMISES COMPETITION

By FRANK BENNETT, A.R.I.B.A.

IV.—THE MAJOR ROOMS.

In this article are shown a selection of the major rooms taken from the designs which were exhibited at Thames House, but which were not published in previous issues. These particular designs are not necessarily chosen

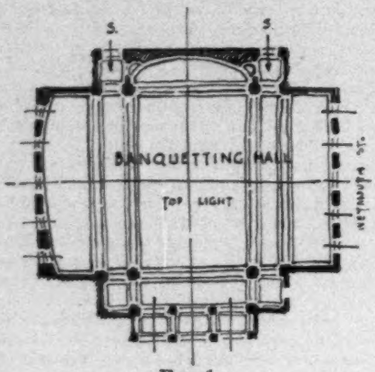


Fig. 1.

for any significance in relation to the premiated schemes, but were picked out for their interest as possible examples of "imaginative handling." Each one, to some extent, tells its own story.

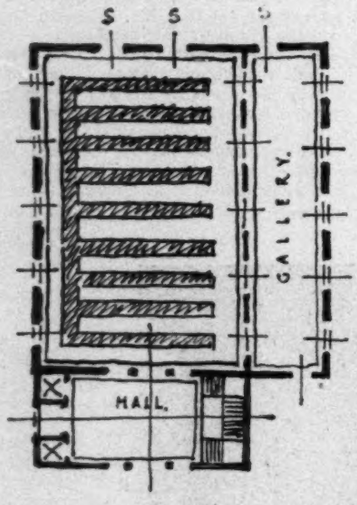


Fig. 2.

The Banqueting and Exhibition Hall in Fig. 1, by Messrs. Harvey and Wicks and H. Jackson, of Birmingham, spreads across the back of the building in a way similar to the winning scheme, but is lit from the top instead

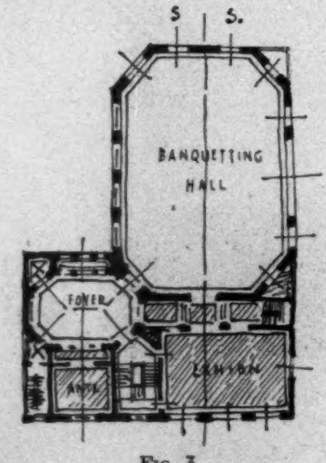


Fig. 3.

of the end and emphasised on its cross axis by deliberate shaping. Its longer width is 70 ft.

Messrs. Plews, Fidler, Lazarus and Brook, of Liverpool, who designed the Banqueting Hall in Fig. 2, which is located on a first floor, claim that it will seat 401 diners in an area of 3,875 sq. ft. By placing the minor Exhibition Hall along one side of the room, cross light is obtained, the dining tables are accessible for service from the ends, and the

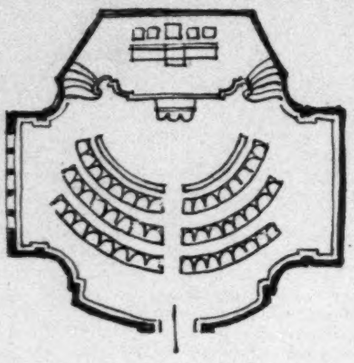


Fig. 4.

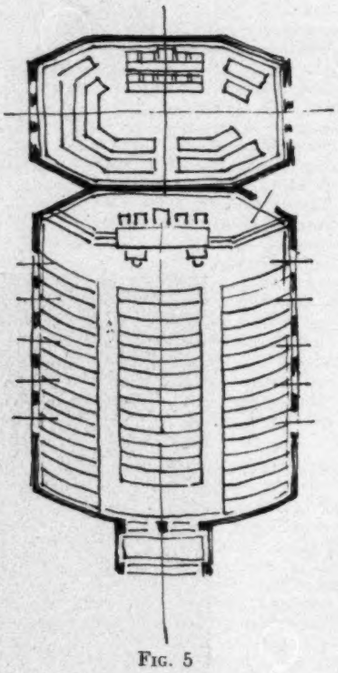


Fig. 5

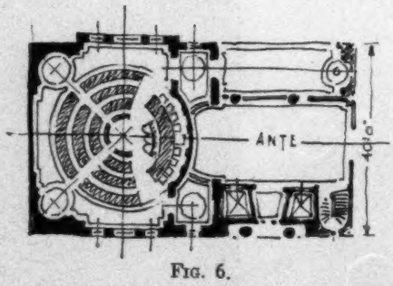


Fig. 6.

seating in consequence is more compact. Messrs. Pakington, Enthoven and Grey planned their exhibition space in a similar way, while Messrs. Scarlett and Ashworth, working on the same principle, employ the Council Dining-room as the auxiliary service, evidently reasoning that meals will never be served at the same time in both rooms.

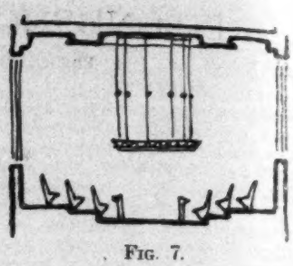


Fig. 7.

The two lozenge shapes in Fig. 3, from the design by Messrs. Mewès and Davis, arise out of an entrance planned to the left side of the Portland-place front. The larger room, which is on an upper floor and 25 ft. higher in section, runs down through the building and becomes the Library on the first floor and the Meeting Room on the ground floor. Æsthetically, these shapes when built might prove to be interesting, but the family resemblance between them, suggesting the one as the offspring of the other is, perhaps, rather too strong.

To some extent the Council Room was the crux of the planning. Together with the Banqueting Hall, the Meeting Room and the

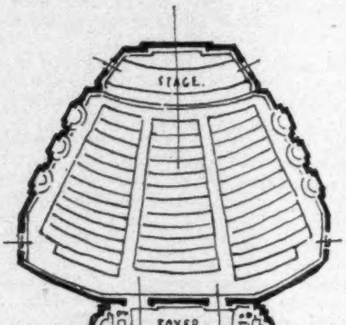


Fig. 8.

Library, it was one of the four major rooms which had to be disposed on "three major floors." This meant a squash on one floor. Mr. Wornum accepted the squash by placing the Council Room in a corner of the plan, while in the design placed second the Library was split into three sections for the benefit of a direct approach to the Council Room. The handling of the Council Room in Messrs. Bucknell, Armstrong and Ellis's design (Fig. 4) was one of the cleverest things in the exhibition. It was squeezed in over the approach to the Meeting Room, and yet managed

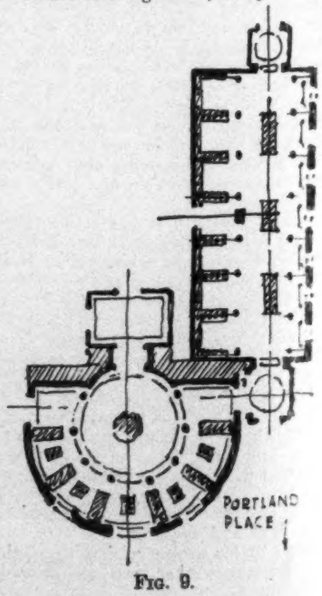


Fig. 9.

to look quite at home on both plan and section, and at the same time be an interesting Baroque shape.

The idea of placing the Banqueting Hall, Exhibition Galleries and the Meeting Room all on one floor, adopted by Messrs. Rowse, Jefreys and Carnegie, allowed the disposing of the Council Room and the Council Dining-room together on one major floor as a generous

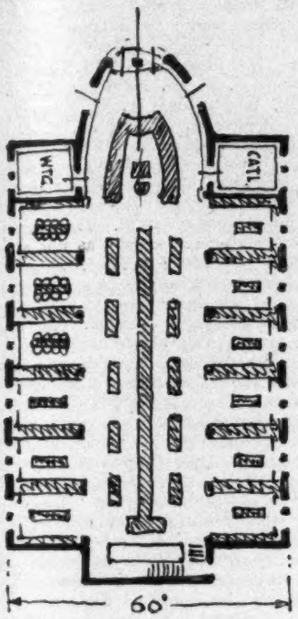


Fig. 10.

suite. In contrast, it will be noted that in the new building it is proposed that Council members shall walk down a floor from one room to the other.

Messrs. Home and Knight coupled the Meeting Room and the Council Room on one floor (Fig. 5), an arrangement convenient when one meeting follows another. The shaping at one end, which arises principally out of the necessity for a splay in the Meeting

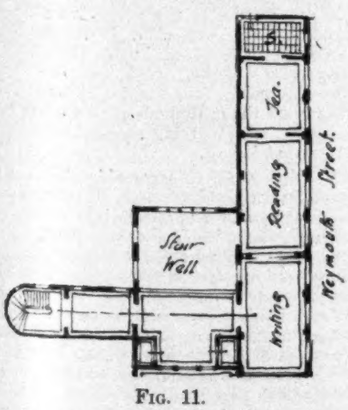


Fig. 11.

Room to receive the projection of the lantern, is reflected at the other end by the curve following the line of the seats. The seating of the Council Room, however, does not work well owing to the side entrance from a corridor.

Mr. Drysdale's Council Room, one item in a particularly interesting scheme, is most ingeniously shaped to gain extra space for the

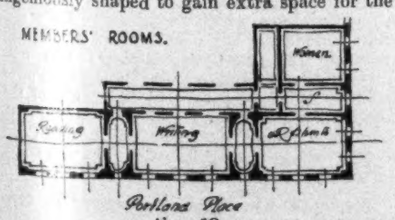


Fig. 12.

ante. It is a high room with modern decoration and trough lighting, and a sound reflector is brought down low over the centre of the speakers. (Figs. 6 and 7.)

A lot is to be said for a wide Meeting Room, as the one in Fig 8, by Mr. T. J. Cahill, of Newcastle, which is 25 ft. high with a flat ceiling and gives on to stairways at both front and back. But this room was submerged completely in the basement with scarcely any daylight, ornamental features taking the place of windows on the inclined sides.

The new Library, as the original conditions pointed out, is to house one of the finest collections of architectural books in the world. This suggested to some competitors that the Library should take precedence over all other rooms and be in a position immediately accessible from the entrance. Other competitors recommended a higher position in order to gain better daylight. Again, other competitors saw fit to sacrifice the convenience of the Library to the advantage of other rooms. Messrs. Oliver Hill and Wamsley Lewis make an interesting suggestion by placing the Library on the seventh floor. Their plan is a contrast of two shapes, which are partly the outcome of massing on the front façade above a main cornice. (Fig. 9.)

It would be instructive to learn the R.I.B.A. librarian's views on the question of the most

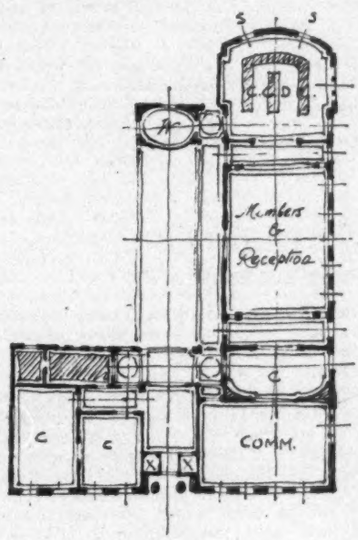


Fig. 13.

suitable arrangement for the three compartments required in the Library, viz., for Reference, Periodicals and Loan. A number of competitors had two and some even three quite self-contained rooms in their libraries, an arrangement which undoubtedly would be convenient to readers, but an inconvenience to a small staff. The Library by Messrs. Fowell and McConnell, of Sydney (Fig. 10), with Reference on one side and the Periodicals and Loan on the other, is a fine room 60 ft. wide and 20 ft. high, with a well-considered system of supervision, but the shapely vestibule might well have been reflected in the section with more effect.

V.—THE MINOR ROOMS.

According to the selected design, the special rooms to be set aside in the new building for the exclusive use of the many ordinary members as Common Rooms are to face on to Weymouth-street at the side (Fig. 11). The rooms themselves, approached at one end off the staircase gallery and run together as Writing Room, Reading Room, Tea Room and service, are pleasant enough in their way and a reasonable compliance with the assessors' conditions, but for these rooms to be on the side, facing south it is true, but shut in by opposite buildings when the spacious outlook of Portland-place is available, seems most unsatisfactory.

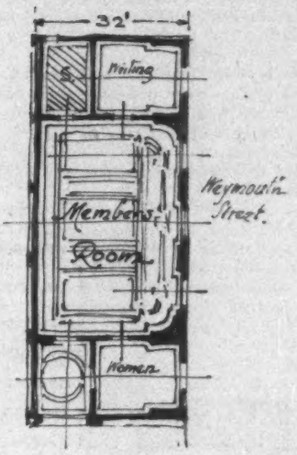


Fig. 14.

The whole fabric of the Institute is its contributing membership, and if the members are not to have a share of the best outlook, who or what else should? The President and the Secretary and part of the Exhibition space might certainly be on the front, but the Council and Committee Rooms, only used occasionally, do not have to be there at all, and the outlook is of little or no consequence to them. It is not the intention to quarrel with the selected design—on the contrary—but this part of the accommodation as originally conceived might well be the subject of some reconsideration.

While suggestions were made by some competitors in the competition to locate the Members' Rooms in unlikely positions overlooking the back area or in the basement, the arrangement suggested by Messrs. Wimperis, Simpson and Guthrie (Fig. 12) reaches nearer the ideal. A suite of three rooms, equal in size and divided by two ante-rooms, occupy the frontage of one floor on Portland-place and are served from a small but adequate compartment which, with the Women Members' Room, faces on to Weymouth-street. In Fig. 13, a portion of the very ingenious design by Mr. G. Drysdale, the members' accommodation is combined on one floor with both the Council Dining-room and the Committee Rooms to provide a suite of rooms which have the double utility of the particular function of each room and a general reception space. It will be remembered that the likelihood of a double utility for the major rooms was pointed out in the conditions. Designing on the same principle, Mr. Drysdale placed the two Arbitration Rooms to be available as ante-rooms on the occasion of general meetings. Presumably the practice of providing light refreshments for members after such meetings will be continued as of old, and a room or rooms adjacent to the Meeting Room for this purpose are necessary quite apart from the Common Rooms unless they all happen to be on the same floor. Messrs. Richardson and Gill definitely provided a refreshment room in the basement for meetings in addition to the Common Rooms on another floor.

The Members' Rooms in Fig. 14, taken from Messrs. Dykes Bower and Goodden's design, with its small Writing and Women's Rooms adjacent, have the weakness of being on Weymouth-street, but, in addition to

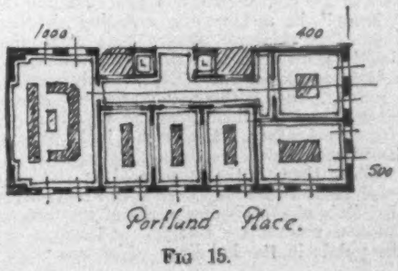


Fig 15.

being approached direct on the ground floor, is a good, self-contained shape, allowing for circulating and sitting space, and is treated with some variety.

Mr. Trystan Edwards' scheme, which suggested giving over practically the whole of the ground floor to the members, interpreted the conditions in this respect with more real liberality than any of the premiated or commended schemes, and from this it would seem

FIG. 16.

that the Council has no desire that the new building should be used as a sort of club by the members

In most of the designs submitted in the competition, the Committee Rooms, unlike the usual precise disposition in a town hall type of plan, were left over among the minor rooms to be pushed into the odd spaces after the major rooms had been disposed. Deciding the exact relative importance of these rooms was a matter of some concern to competitors. If a Committee meets, say, once a month, the basement is good enough for the purpose, but if the Committee Room is to be used for receptions as well it ought to be on the important floor. Undoubtedly, the best compromise was struck by Messrs. O'Rourke and Peacock, who arranged a mezzanine "Committee floor." (See photographs previously published.) A long ante, the Council Dining Room and the Services, together with the four Committee Rooms and two Arbitration-rooms took up all the floor which fitted in conveniently between two major floors.

Messrs. John Keppie and Henderson, of Glasgow, treated the Committee and Arbitration Rooms as an independent and self-contained group, disposed on the forward width of the building in one of the tidiest arrangements seen at the exhibition (Fig. 15). This is much more compact planning than the former and relies on its corridor for ante space, with the large thousand-foot room balanced in weight about the axis by two smaller rooms, totalling, together, about a thousand square feet.

Fig. 16 shows the grouping of the Committee, Arbitration, Council Dining, Women's and Service Rooms in a continuous suite on one floor around the two façades of the building. By the clever arrangement of service with a curved counter it is possible to attend upon any or all of the rooms from the one small compartment.

A bar, as Mr. Jordan suggested, would be a human and convivial addition to the new accommodation. It could be open to everybody in common and might be made the object of an exotic type of decoration.

(To be continued.)

"THE BUILDER" DEBATE

LI.—ARCHITECTURE AT THE ACADEMY.

SIR,—I have read "Positive's" suggestion advocating models with great interest, but with not very much conviction. In opposing him, I should like to start with some sort of a defence of the Royal Academy authorities. It is true that they are concerned with three of the arts, and that sections of the Royal Academy Schools are allotted to each. But that does not follow that they should divide their cubic content into three equal parts for display. In spite of the bulky nature of their exhibits, we hear very little complaint from the sculptors, who are also given very little space in proportion to that given to the painters, and I am inclined to think that the show space is accepted by the sculptors as adequate to the needs of their art. But every year we have complaints on all hands from the architects, which can be accounted for by the fact that architectural drawings are the necessary preliminary to architecture, and, being available, the architects are anxious to display them.

But may I ask whether a display of architectural drawings does adequately illustrate fine architecture and whether the scale model does the same? I maintain that architecture is never known until it is built, and that that is the only work of art which the architect creates. To be put off with a second best in the way of scale models and able drawings is not good enough.

The public can only view fine architecture in the streets, where the good building is "hung" in a far more arresting position than any painter's picture gets "on the line." Here are vast galleries to which the painter is denied entry either for honour or publicity, and I think the architect shows himself to be a little grasping in asking to oust his brother artist from his legitimate hoarding.

What, then, is the purpose of an architectural room at the Royal Academy? I claim that it is not to display works of art, but to found a preliminary interest on the part of the public in the buildings which are represented. To look upon the matter in any other light is to reduce one's conception of architecture to a scale of one-eighth of an inch to the foot.

Now as to models themselves. I agree that they are delightful little gadgets, to which we are all attracted from the age of four years upwards. But they are merely toys, for to suggest that the effect of a model viewed from the full-grown stature of a man relates in any way to the effect which the real building will have upon the observer is to deceive oneself. A good drawing rendered with some sense of atmosphere suggests the effect of the finished building far more helpfully than any model or doll's house can suggest. Therefore I put forward the following contentions, all of which run counter to "Positive's" argument: (1) That architecture is as adequately represented at Burlington House as the nature of the art will allow; (2) that architecture should be shown in the form of drawings, and (3) that models should be excluded.

Finally, I oppose the point of view of "Positive" that the chief object of the R.A. exhibition is to reach a public. The facts deny it on his own showing. He admits that only brother architects and relatives visit the architectural room, with few exceptions, and most of us will agree with him. Why, then, should the architects take the trouble to submit their works year after year in numbers far beyond those for which space can justly be spared? Surely it is because they recognise and value an acknowledgment by the headquarters of British art that their work is noteworthy. I am sure that it is this consideration which weighs most with all the exhibitors at the R.A. exhibition. If this is admitted, the strong point which "Positive" makes of the crowds likely to be attracted to the Architecture Room by the prospects of being allowed to peep through the miniature door of a model falls to the ground, as does the remainder of his argument, in my humble opinion.

NEGATIVE.

THE LONDON SOCIETY

ANNUAL DINNER.

THE 24th dinner of the London Society was held on May 12 at the Hotel Victoria, when the Earl of Crawford and Balcarres, K.T., presided over a large company. Amongst those present were: Sir William Wayland, Sir Alfred Rice-Oxley, Messrs. Carmichael Thomas, Oswald Healing, H. J. Leaning, Wm. Muirhead, H. H. D. Anderson, H. B. Creswell, W. R. Davidge, A. W. Kenyon, F. A. Minter, Alister G. MacDonald, E. J. Brown, J. D. Daymond, Miss L. G. Crum (Secretary), and Mr. Percy Lovell (Organising Secretary).

The President, in introducing the speakers, said that they were to speak of London from the point of view of youth. There were many ways of looking at London, as was shown by Boswell's quotation: "They, whose narrow minds are contracted to the consideration of some one particular pursuit, view London only through that medium. A politician thinks of it merely as the seat of a Government in its different departments; a grazier as a vast market for cattle; a mercantile man as a place where a prodigious deal of business is done upon 'Change; a dramatic enthusiast as the grand scene of theatrical entertainment; a man of pleasure as an assemblage of taverns. But the intellectual man is struck with it as comprehending the whole of human life in all its variety, the contemplation of which is inexhaustible."

Lord Dunglass, M.P., said that nothing in his own constituency in Glasgow had impressed him as much as the slum clearance work. The London Society was doing a great work in that direction in the Metropolis to give the coming generations a chance to be born in decent surroundings.

Mr. Anthony Crossley, M.P., recalled how one Thomas Armstrong—Surgeon Extraordinary to George IV, and an authority on obesity—had stated that it was impossible in London to avoid over-eating, since the City looked so much better after a good dinner. London, even to-day, was thirty years behind the rest of the world. We neglected our artists and did not invite them to use their art in any service in the public interest. As one public man had said, in the centuries hereafter we should be known only by our subterranean works, such as our great "Underground." The London Society, so far as they were the custodians of things left from the march of progress, should continue to fight on that behalf.

Mr. Alister G. MacDonald, A.R.I.B.A., suggested that London was in its present position because she had studied tradition and because her technical ability was good.

Mr. A. B. Knapp-Fisher, F.R.I.B.A., said that when one looked back over London's history, one shuddered to think what London would have done without the eighteenth century. With the nineteenth century, fussiness crept in, followed by the industrial revolution, when people rushed about like Gadarene swine. Coming to our own time, London was covered with a noxious, red rash of vulgar building. We saw such streets as Oxford-street, the Strand and Regent-street, which were, for the most part, a disgrace to civilisation, and yet we had only ourselves to blame. Who would deny the need for a Town Planning Act which should apply not only to open but to built-up areas? Yet there were a few examples of achievement, and he would like to mention a few buildings which added lustre to a city sadly needed it: the west front of the Horticultural Hall in Greycoat-place; the new Underground building; the Battersea Power Station, and the houses and tenements of the London County Council. But whatever was done in London, he hoped the Select Committee would prohibit using the sky for commercial exploitation.

Mr. Raymond Newell entertained the company with some delightful songs.

NORWICH MUNICIPAL BUILDINGS COMPETITION

By A. G. BERRY.

NOTE.—We publish this week in an eight-page supplement the illustrations of the winning design in this competition (by Messrs. C. H. James and S. Rowland Pierce, F. & A.R.I.B.A.) and of the design placed second (by Sir John Burnet, Tait & Lorne, FF.R.I.B.A.).

WHILST the plan is the essence of a competition of this nature, being, indeed, the *raison d'etre* of the whole scheme, the citizens of Norwich are concerned almost entirely with the elevation. In this city the traditions of many centuries have been handed down to the present generation to safeguard, and, whilst the new Town Hall may be built to satisfy the civic pride of the Council, it would be a disaster if this civic pride damaged the traditional character of the ancient city.

With this in my mind, I tried to find out what kind of a building the Norwich man-in-the-street was expecting, and questioned a few fairly representative business men. A journalist replied: "It must be something quaint and old-world." Probably this represents the view of 90 per cent. of the citizens. To an estate agent I explained that the new building would be set far back beyond the present boundary of the Market-place and might destroy its present scale and possibly alter its whole character. He was horrified, and exclaimed: "It would be terrible to destroy the Market-place. Why! The Market-place is Norwich." As this also expresses the opinion of the said 90 per cent., I hope Messrs. James and Pierce will try to retain the character of the old Market-place as a base for their beautiful façade.

A competing architect expressed the hope that the competition would not be won by a competition expert with no soul, and a ratepayer exploded: "What? A Town Hall? With rates at 19s. 10d. in the £!!!"

With the opinions of the people who are paying the piper in our minds, let us look at the winning design, No. 134 (Messrs. C. H. James and S. Rowland Pierce). The competition must be won on its plan, but, fortunately, the skilful planner is also the skilful designer of elevations, and, in this case, the plan which contains the greatest number of good points is allied to the elevation that harmonises most with the traditions and character of Norwich. This will be a beautifully symmetrical plan when the future extensions are completed, and, although with such large departments it is impossible to avoid using two floors for one department, the inconveniences attached to this are cleverly avoided in some cases. The chief feature of this departmental planning is that each department can be built in a self-contained block, added to the portion already built and the whole staff and equipment of the department moved in without disturbing any other portion of the building.

Although the M.O.H. is well situated in a separate block at the rear of the site (a position not many competitors thought of) with very convenient rooms, I must say that I should have liked to see this department placed on the St. Giles-street front. Next to the Market-place, St. Giles-street is the most important side, being one of the main arteries of the city, and it seems to be a pity to leave all the future extensions here, whilst the Bethel-street (a back street) frontage is fully built. The M.O.H. could still have his entrance on the Access-road, a very desirable position, and the greater portion of the Access-road would be the best site for future departments. This Public Health department seems to be enormous for a city the size of Norwich, but that, of course, is not the designer's fault. It is well planned, and I prefer the five smaller waiting rooms to the large Euston Station type adopted by many competitors. The Rates section is in a good position for the ratepayers to queue up (on the day before the summonses are issued), but the access to the public space from the main entrance might be improved.

The Council Chamber, Members' Rooms, Reception Gallery and Committee Rooms are grouped better than in any other plan, and are secluded from the general passage corridors—a point most competitors failed to appreciate. The Lord Mayor is some distance from the Council Chamber, and he will miss his present comfortable little old-fashioned room in the ancient Guildhall. I like the way the police entrance vestibule is cut off from the rest of the department on both floors, keeping the inquisitive public strictly to itself. In times of trouble this is most useful. The large centre courtyard is distinctly good, and from both the æsthetic and useful point of view could hardly have been improved upon.

Now for the elevations, which next week all Norwich will be staring at. The winning elevation is the best of any submitted, without a doubt. It is beautifully drawn and rendered. The low stone base and local brick upper portion are eminently suited to Norwich, the best traditions of Norwich building being interpreted in a modern manner, whilst the centre portico is dignity itself. The building looks as though, when it is completed, it will grow into the hearts of the people of Norwich. Although there is a tall clock tower, no less than 200 ft. high, it is placed on the right hand of the front to balance the tower of St. Peter Mancroft Church on the left, and may not dominate the Market-place, as a central tower would have done. Even if the tower is on the tall side, its omission would greatly detract from the dignity of the front. Beautiful as this design is, there still remains a doubt in my mind as to the Market-place being able to stand a façade 68 ft. high stretching across the entire width of the square. Will it become a modern Colossus?

Of the premiated designs, No. 131 (Sir John Burnet, Tait and Lorne) has a better-placed rating department, at the cost of the look of the main staircase, but the two centre courtyards are neither so airy nor so pleasing as the one large space of the winner. The Members' Rooms and Committee Rooms on the first floor are not sufficiently private, being rather in a general passage-way. The police entrance is too open, giving any visitor the opportunity of passing the inquiry office and going straight upstairs. Otherwise this plan is very clever, giving the very maximum of convenience of communication, and the front elevation has a beautiful central feature, such as we have come to expect from this gifted firm, but perhaps a large all-stone façade would have killed the old Market-place and always looked a foreigner.

No. 112 (Messrs. Shepherd and Jellicoe), another premiated design, has a very good main entrance and a well-placed rates section, but again the Members' Rooms are too public. The police entrance would have been better in Bethel-street, as this entrance should be obvious to the public in a hurry. In these days one does not want to look about for the entrance when the "snatch-and-run" is just getting away; if one wants a policeman then, one wants him in a hurry. This plan, generally, is excellent, and the elevation is simple and straightforward and plain. If placed first, it would have stood no chance of getting past the Council. It is too modern for Norwich. It is too modern for me.

The other premiated design, No. 6 (Messrs. E. Douglas Lyons, Thomas E. North and L. Israel), has, in many respects, the best plan submitted, but the experienced assessor, Mr. Robert Atkinson, says that its defect of having no provision whatsoever for future extension is insuperable. There are other small defects, certainly. The main stairs are too close to the main entrance and too mean for the building. The police offices are not close enough to the fire station, the reception rooms might be considerably improved, but the accountant's department is splendidly laid out and, in many ways, the plan is great. The promise of the plan is fulfilled in the elevation which, on account of its comparatively low height of 40 ft., might possibly be better suited to the city than that of the winner. The front elevation culminates in a grandly designed tower, and the old Market Place would have stood out well in front of this building.

This is the only design in the first four which has avoided the fault of having the future extensions on the St. Giles-street front, the worst possible place for them, but as its only possible extension is on the top, this would, in every sense of the word, "put the lid on it."

When we look at design No. 8 (Mr. J. M. Wilson) and realise that it is not even premiated, we begin to understand what a very high standard of work has been submitted for this competition, for we can say, "Here is a genius." The effect from the Market Place would be of a great wide mediæval gateway with a broad flight of steps between the gate towers and, set well back, a fine tower rising from behind the steps. A modern building with a mediæval touch, emblematical of the spirit of Norwich. It is a wonderfully coloured elevation. The departments are too much split up, making it rather an extravagant scheme, but otherwise it is a fine plan.

No. 83 (Messrs. Bertram S. Hume and Raymond Erith) is a thoughtful plan, and excellent in many ways, especially in the courtyard entrance, but I cannot think that one single Georgian doorway, 24 ft. by 36 ft., in the centre of the building, is in scale with anything.

No. 110 (Mr. P. D. Hepworth) is another clever plan, slightly unbalanced perhaps. The idea of the stone base and brick upper story is good, but the elevations are rather a mixture of styles.

No. 137 (Messrs. Stanley Hall, Easton and Robertson) places the Council chamber on the left, giving a curiously unbalanced plan. The tower on the left of the front would have been a very modern counterblast to St. Peter's Church tower.

No. 143 (Mr. James Burford) produces a building 96 ft. high, the scale of the Market Place and of Norwich having been entirely lost. The Council chamber is placed at the back, and there is a fine main staircase approach to a plan which is generally very good, but rather spread out.

[Note: The assessor's award in this competition was given in our issues for April 29 and May 6.]

The Roman Pavement, Chipping Wycombe.

The Chipping Wycombe Town Council have carried out certain works in connection with the excavation of the Roman tessellated pavement in Holywell Mead in conjunction with various experts, and have found that portions of it have been removed. They are of opinion that portions of the pavement could be removed, suitably framed, and exhibited in the new museum, and recommend that Dr. R. E. Mortimer Wheeler, the Curator of the London Museum, be asked to advise the committee generally on the matter.

The Preservation of Oxford.

The Oxford Preservation Trust announce in their fifth annual report that they hope shortly to complete negotiations for the purchase from the Morrell Trustees of about 56 acres of South Park, Headington. In their review of the year 1930-31 the trustees state they have been able to accomplish a project they have long had in view, of preserving the crown and slopes of Shotover Hill. The land acquired includes about seven acres on the north side, while on the south side 66 acres have been obtained from Christ Church and 64 acres from Brasenose College on either side of Johnson's Piece, so that the whole southern slope is now secure from building.

ILLUSTRATIONS

PLATES.

Norwich Municipal Buildings Competition.

We illustrate in a special supplement the winning design in this competition, by Messrs. C. H. James and S. Rowland Pierce, F. and A.R.I.B.A., together with the second premiated design by Sir John Burnet, Tait and Lorne, FF.R.I.B.A. A criticism of the designs is given on page 883.

Broadcasting House.

Some six years ago it became obvious that the B.B.C.'s premises at Savoy-hill were inadequate for the rapidly increasing activities which the Corporation was undertaking, and it was early in 1928 that a definite decision was made to build new headquarters designed specially for broadcasting. A site was ultimately chosen at the corner of Portland-place and Langham-street, where a lozenge-shaped area of approximately 20,000 super feet was available.

In principle, Broadcasting House is a building within a building; the offices being arranged round the outside of a large central tower which is built of brick and contains extensive studio accommodation. In this way, the offices have the full advantages of daylight and at the same time act as sound-insulators for the studios inside the tower which they surround. By surrounding the central tower with offices in this way, accommodation is provided for a staff of 750 persons, while the tower contains no fewer than 22 studios built in self-contained suites. There are three floors below, and eight floors above street level.

The 22 studios vary in size from small "talks" studios to the main concert hall, which has a volume of 125,000 cubic feet, and is capable of seating an audience of 750 people, in addition to a full symphony orchestra. The concert hall was designed by Lt.-Col. G. Val Myer, F.R.I.B.A., who is the architect for the whole of the building, except for the decoration of the minor studios and their respective suites. In its design traditional architectural motives are abandoned. The lighting is semi-direct and gives cheerful nuclei of brightness, whilst protecting the eye from the main sources of illumination. The vertical projections on the walls which, in days gone by probably would have become pilasters, not only punctuate the design and carry down lines of support for the great ceiling beams, but also serve a practical purpose in containing the hoisting gear for the microphones. This is of a somewhat complicated description and would have been very unsightly unless special methods had been adopted for dealing with it all. Main interest is concentrated on the bronze organ grille, behind the stage, with the coloured coat-of-arms. When the concert hall is finished it will be dominated by a series of tinted bas-reliefs, just above the eye level, by Mr. Gilbert Bayes. Each suite of studios is provided with its own artistes' waiting-room so that the artistes can be shown straight into the waiting-room adjacent to the studio in which they are going to work. British materials have been used almost exclusively in the construction and decoration. The heavier materials—timber, metal work, fittings—were all supplied by British firms, the timber being all from within the Empire.

The entrance hall, semi-circular in plan, is devoid of ornament, and depends for its effect upon the grace of the natural curves which arise from its circular form and the rhythm of its vertical lines. Hopton-Wood stone lines the walls. The central feature of the hall is to be a symbolic figure of "The Sower," for which Mr. Eric Gill has already made his model. On the wall directly facing the main entrance is a Latin inscription.

The offices form the outer crust of the building and have been arranged in such a way that it has been possible to segregate the different branches on separate floors. The offices of the senior officials are at the southern end of the building, facing down Upper Regent-street.

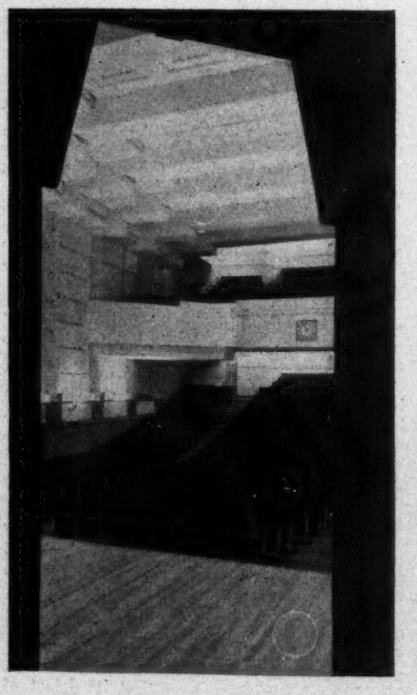
The council chamber, 60 feet across, is of semi-circular shape, like the entrance hall. This room is lined with Tasmanian oak and, at night, is entirely illuminated by reflected light from lamps concealed in wrought-oak urns. The pedestals of these urns serve as relieving accents to the simple panelled walls.

A well-lit "L"-shaped room on the eighth floor, the control room, is divided functionally into two halves. Eight control desks are provided for rehearsals, together with their accompanying supervisory positions. The transmission section is equipped with six control desks, also with supervisory and simultaneous broadcasting positions. Along the length of the transmission section of the room are placed racks of amplifiers, each group of amplifiers fulfilling a definite function in the chain of transmission between the studios and the transmitters.

One of the main features of Broadcasting House is its elaborate system of ventilation. The studio tower, being entirely encased by the offices and built so that it excludes all external noise, has to be provided throughout with artificial lighting and ventilation. In order that artistes may work under the most favourable conditions, the air provided to the studios is conditioned before being circulated through them. The air-conditioning plants are situated in the sub-basement. As the offices are open to fresh air, conditioned air is not provided to them. They are, however, heated in winter by hot-water radiators.

The exterior design of the building includes various positions for groups of sculpture. These were entrusted to Mr. Eric Gill, who accepted the B.B.C.'s suggestion that he should take for a central subject the figure of Shakespeare's Ariel, who as the invisible spirit of the air might well serve as a personification of broadcasting. The two panels on the west front show "Ariel between Wisdom and Gaiety" and "Ariel hearing celestial music"; and a panel over the entrance on the east side represents "Ariel piping to children." The most important group, that intended for the niche above the main entrance, is to show Prospero, Ariel's master, sending him out into the world. This group is not yet completed; the others, which have been carved *in situ*, being ready except for finishing touches on the east panel.

The following, among others, have been responsible for the building and equipment of Broadcasting House:—Lt.-Col. G. Val Myer, F.R.I.B.A., architect; Mr. M. T. Tudsbery, M.Inst.C.E., civil engineer. Studio interiors designed by:—Messrs. Raymond McGrath, B.Arch., A.R.I.B.A., decoration consultant; S. Chermayeff; A. Wells Coates, B.Sc., Ph.D.; Edward Maufe, F.R.I.B.A., and Mrs. Philip Trotter. Sculptures by Mr. Eric Gill. Mr. N. Ashbridge, chief engineer of the B.B.C.; Mr. H. Bishop, assistant chief engineer; Messrs. H. L. Kirke, A. B. Howe, acoustics; Messrs. B. N. MacLarty, W. K. Newson, installation; Messrs. F. M. Dimmock, C. H. Colborn, design and manufacture; Mr. A. G. Dryland, acting engineer-in-charge.



Broadcasting House, Portland Place, W.: Concert Hall.

LIEUT.-COL. G. VAL MYER, F.R.I.B.A., Architect.

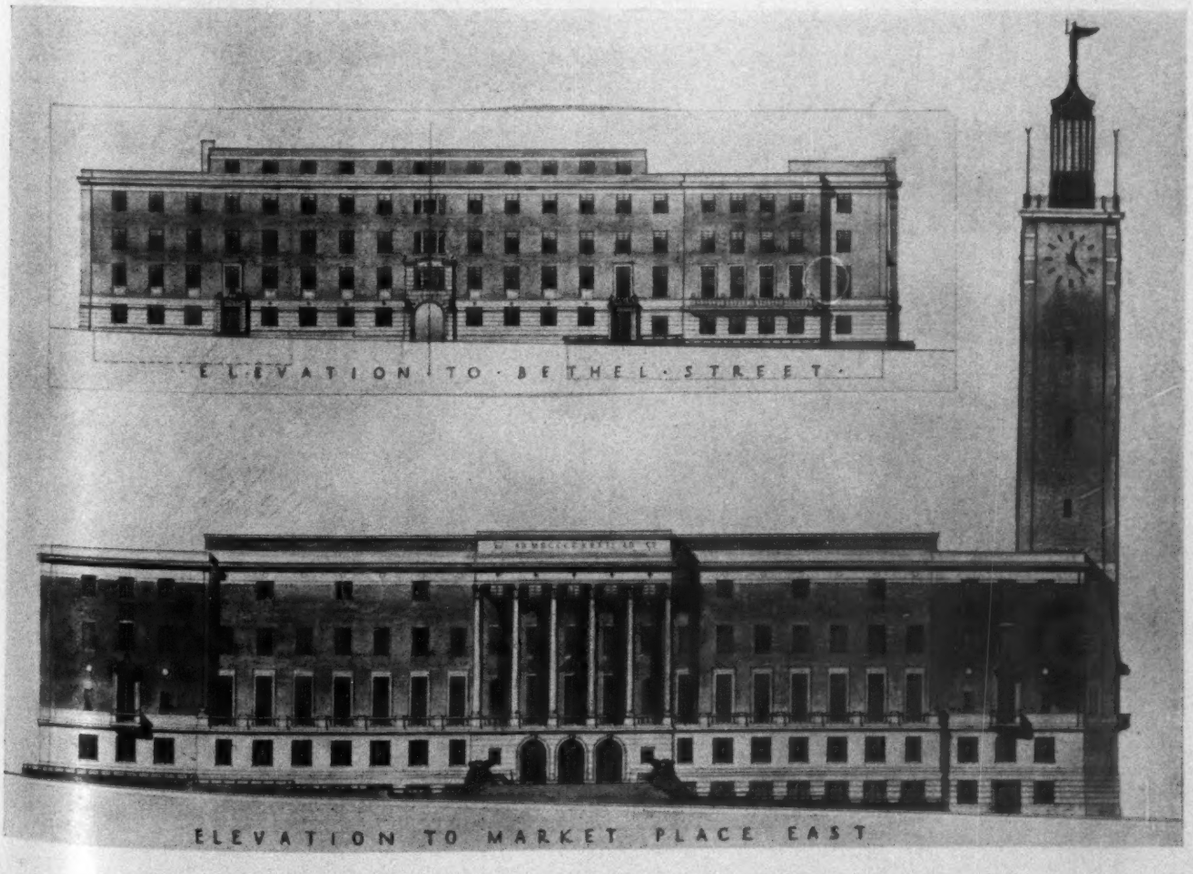
The main contractors for excavations, foundations and retaining walls were Messrs. Holland & Hannen and Cubitts, Ltd., and the main contractors for the superstructure Messrs. Ford and Walton, Ltd. The following firms were also associated with the work:—Anselm Odling and Sons, Ltd., Hopton-Wood stone; Aerocrete, Ltd., soundproof partitions; W. Aumonier and Sons, carving; Carrier Engineering Co., heating and ventilation; Carter and Co. (London), Ltd., tiling (wall and floor); Central Joinery Co. (1927), Ltd., doors; Crittall Manufacturing Co., windows, roof lights and metal doors; Comyn Ching and Co., Ltd., metalwork; Dent and Hellyer, Ltd., sanitary installation; Grano-Metallic Paving and Plastering Co., Ltd., stuc plastering; Haywards, Ltd., pavement lights and iron staircases; Independent Sprinklers, Ltd., fire protection; G. Jackson and Sons, Ltd., fibrous plastering; Korkoid Decorative Floors, floor finishings; Leeds Fireclay Co., Ltd., sanitary fittings; Marley Bros., Ltd., Birmingham, main bronze entrance doors; Moreland Hayne and Co., Ltd., structural steelwork; Nicholls and Clarke, Ltd., ironmongery; E. Parkinson (London), Ltd., slating; Trussed Concrete Steel Co., floors and soundproof ceilings; Troughton and Young, Ltd., electrical installation; United Stone Firms, Ltd., Portland stone; G. Whitehead and Sons, Ltd., marble floors; Waygood-Otis, Ltd., lifts; Birmingham Guild, bronze doors (internal); John Cooke and Sons, Huddersfield, terrazzo floors; Carron Company, fireplaces; London Spray and Brush Painting Co., cellulose gilding; Chubb and Sons, doors to strong room; Piggotts Bros. and Co., Ltd., flagstaffs; Holden and Brooke, Manchester, sewage and booster pumps; Synchronome, clocks; A. Goslett and Co., special glazing; J. W. Gray and Sons, Ltd., lightning conductors; Marylebone Borough Council, electrical plant; Jenson and Nicholson, anti-corrosive paint; A. H. Davis, Ltd., expandable paint; Goodlass Wall and Co., paint generally; Eric Munday, Ltd., lettering; Midhurst Bricks, Ltd., white bricks; Burn Bros., drainage goods; Cement Marketing Co., cement; Eastwoods, blue bricks; Huntley & Sparks, Cabot's quilting; Hollis Bros., Hull, wood flooring; Teuten and Co., Ltd., cast-iron box gutters; Le Grand Sutcliffe and Gell, artesian well; Whipp and Bourne, Ltd., switchgear; Erskine, Heap and Co., Ltd., switchgear; Laurence, Scott and Electromotors, Ltd., motor generators; Tudor Accumulator Co., Ltd., storage batteries; Hart Accumulator Co., Ltd., storage batteries; Ericsson Telephones, Ltd., automatic inter-communication telephones; Siemens Bros. and Co., Ltd., engineering telephone system; Smith and Hammond, Ltd., broadcasting wiring; English Electric Co., Ltd., motors for ventilation, heating, etc.; Sturtevant Engineering Co., Ltd., vacuum cleaning.

Design for a Mansion House.

This design was highly commended in a recent competition for a Mansion House, at Birmingham. Mr. Charles E. Pearson, of Messrs. C. B. Pearson, F.R.I.B.A., and Son, was the author of the scheme. The drawing is now on exhibition at the Royal Academy.

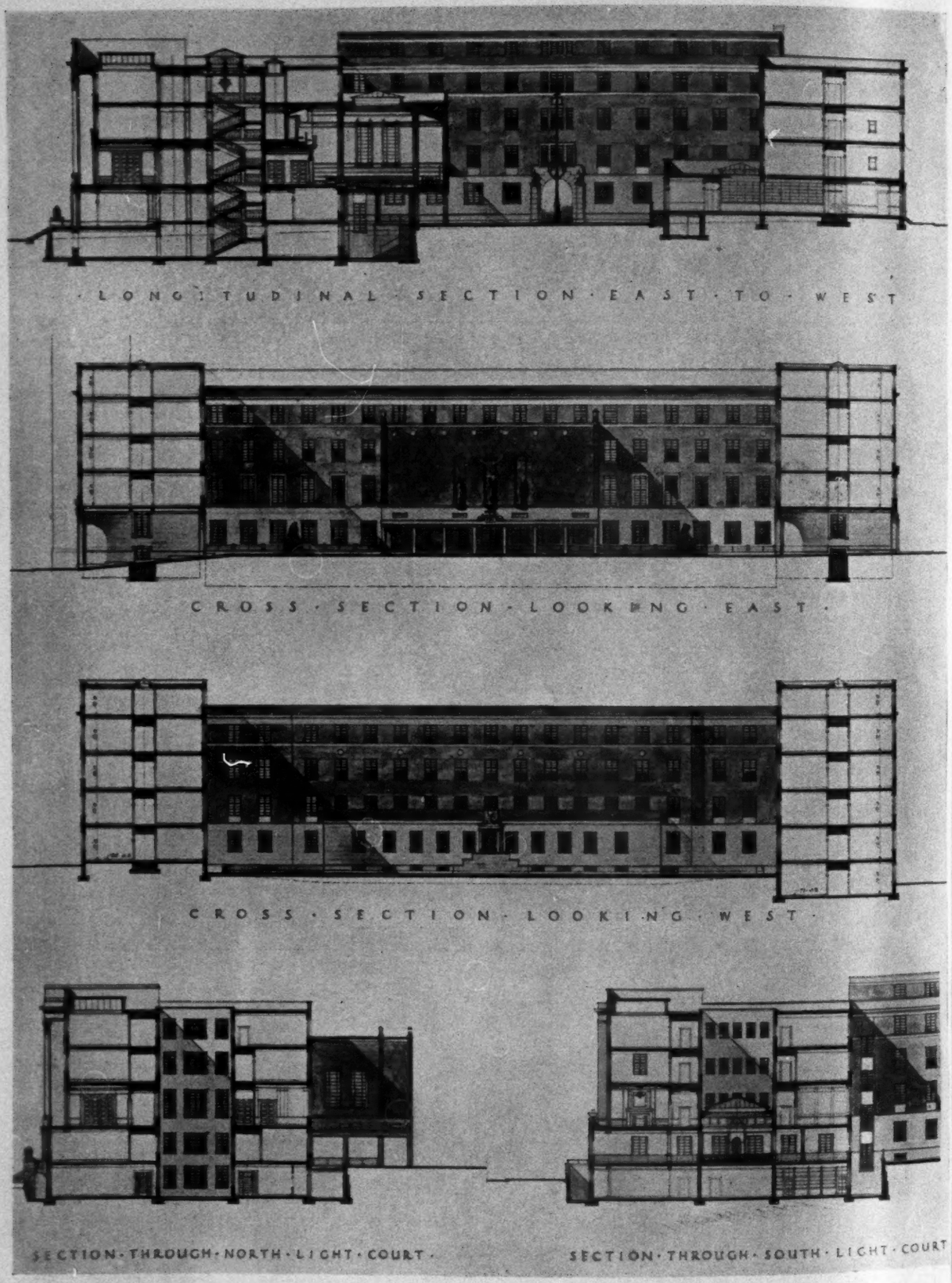
All Saints' Church, Sydenham.

This drawing, illustrating sketch designs for a church hall, is now on exhibition at the Royal Academy. Messrs. Knapp-Fisher, Powell and Russell, FF.R.I.B.A., are the architects



Norwich Municipal Buildings Competition: First Premiated Design.

MESSRS. C. H. JAMES AND S. ROWLAND PIERCE, F. & A.R.I.B.A., Architects.


LONGITUDINAL SECTION EAST TO WEST
CROSS SECTION LOOKING EAST
CROSS SECTION LOOKING WEST
SECTION THROUGH NORTH LIGHT COURT
SECTION THROUGH SOUTH LIGHT COURT

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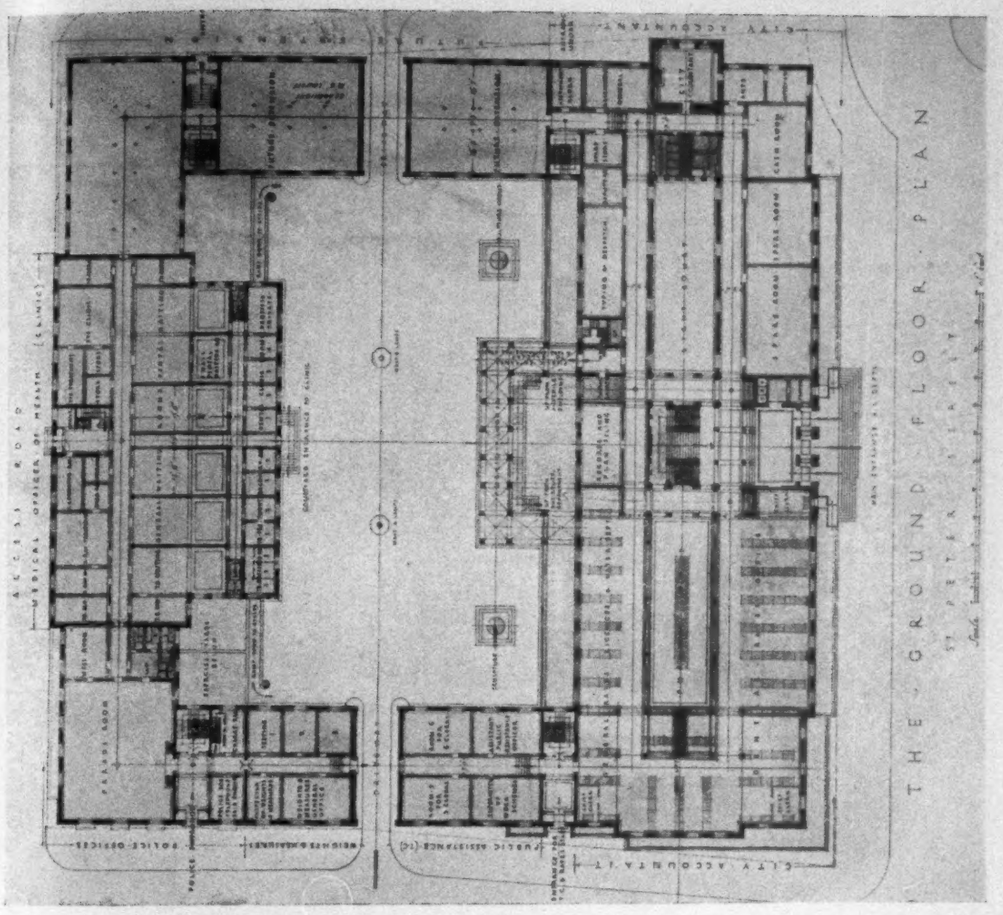

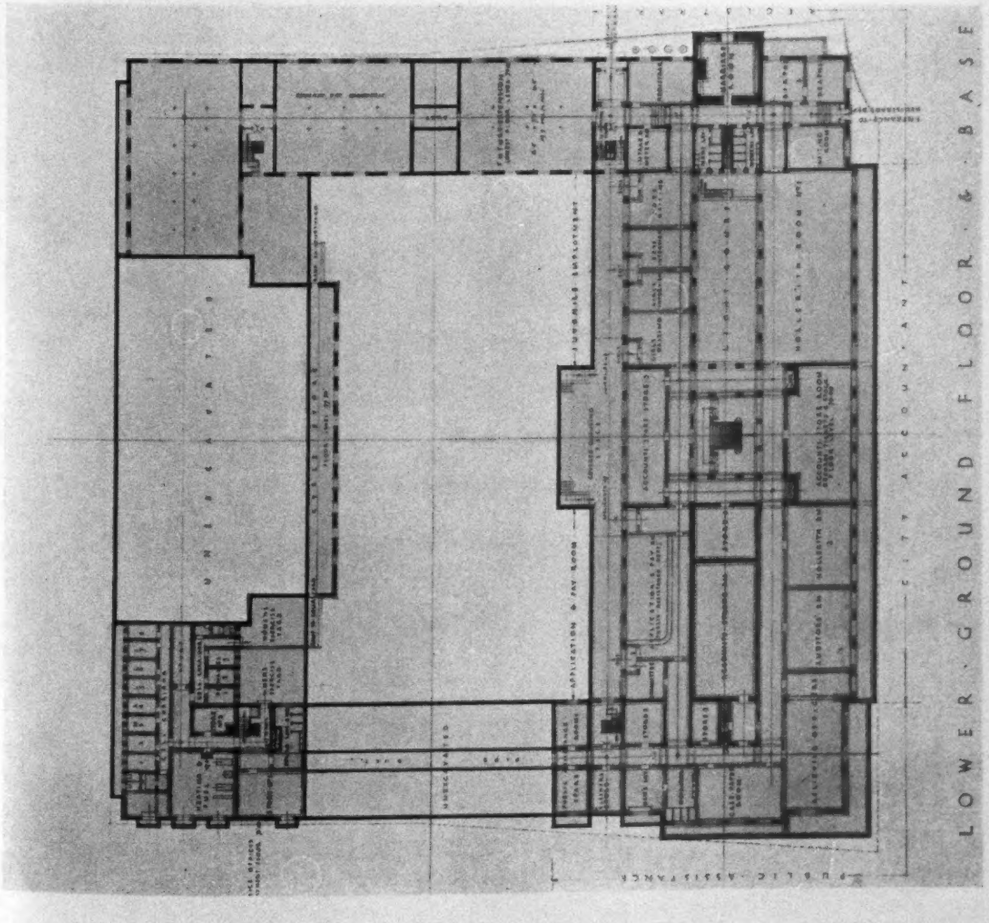

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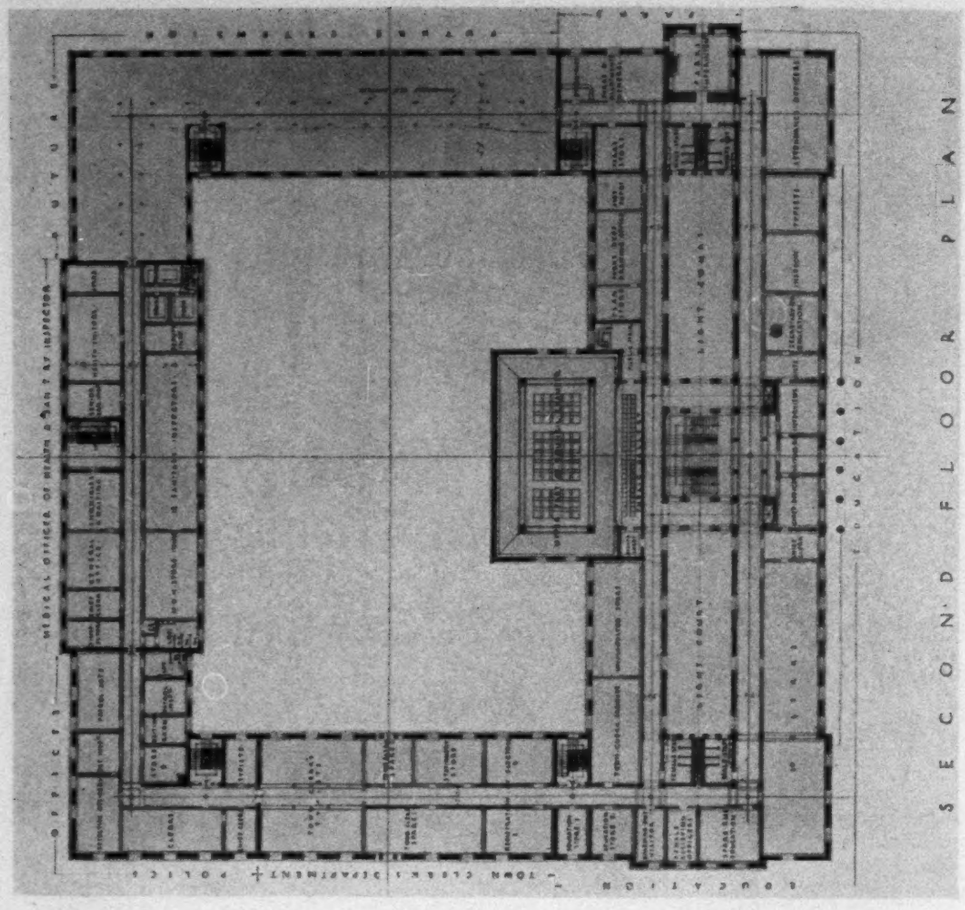
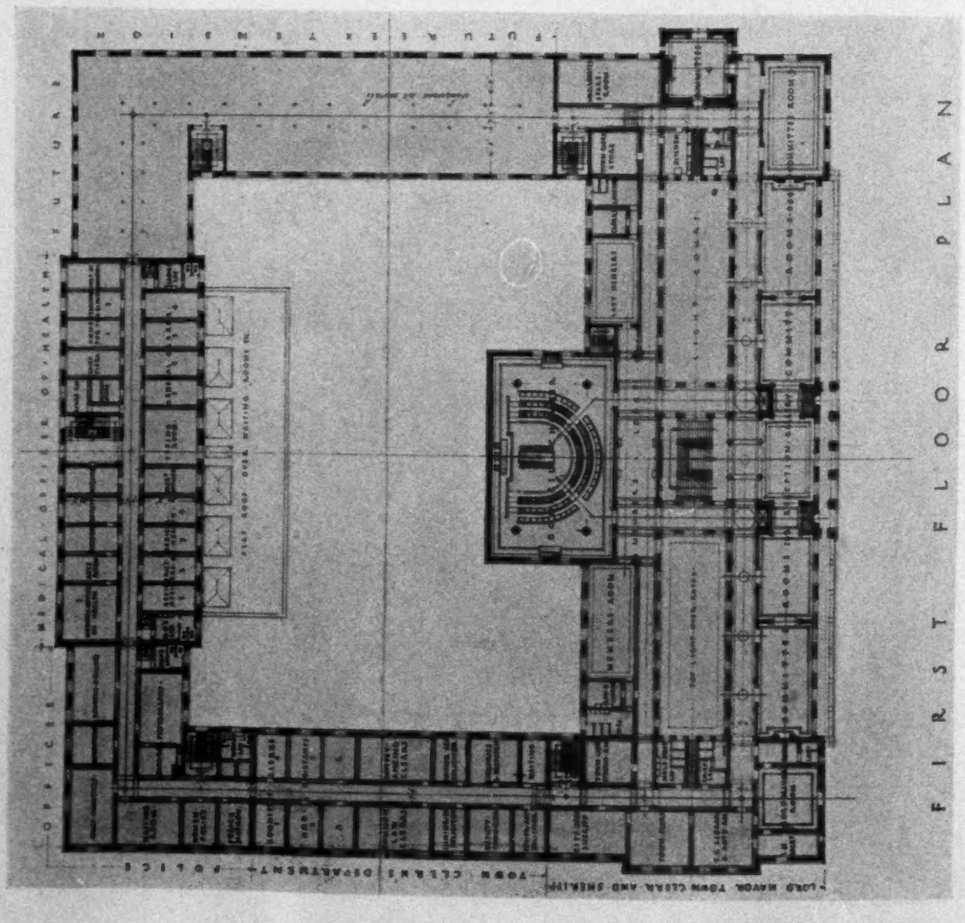
May 20,





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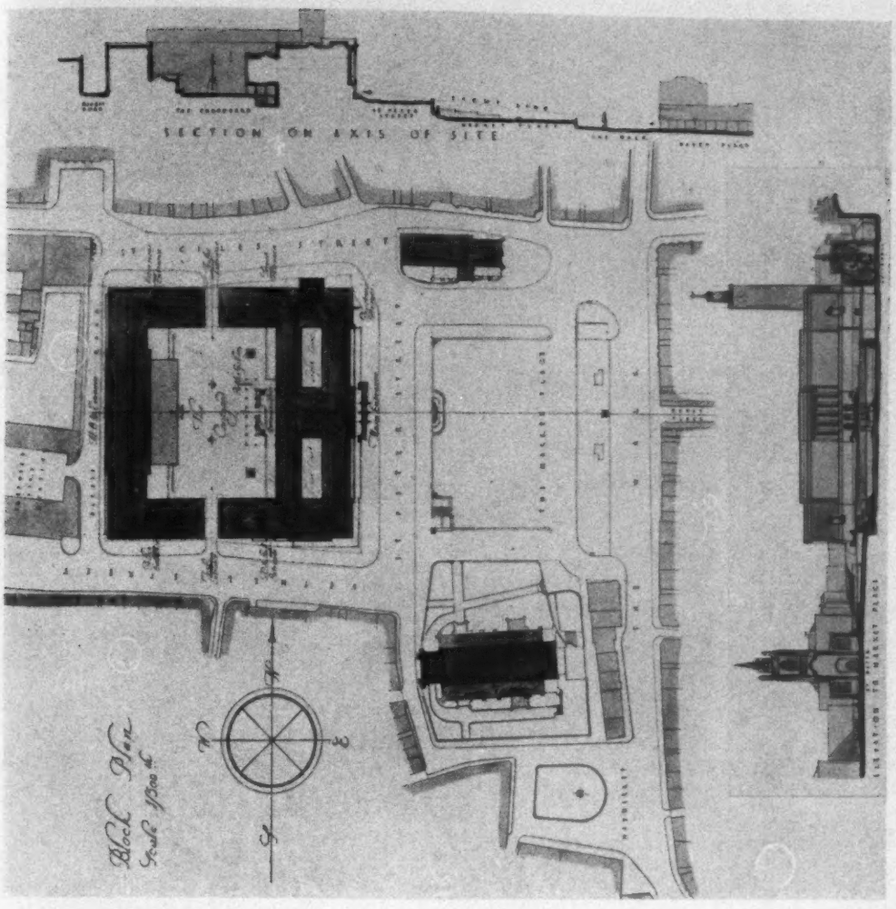

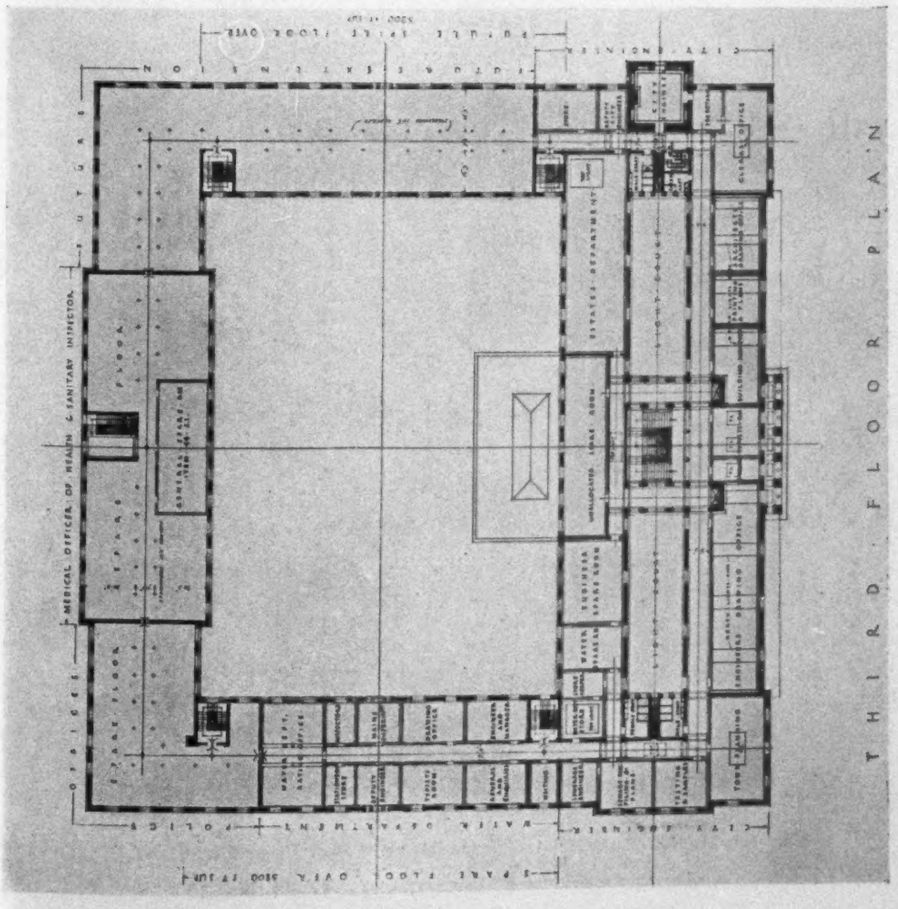

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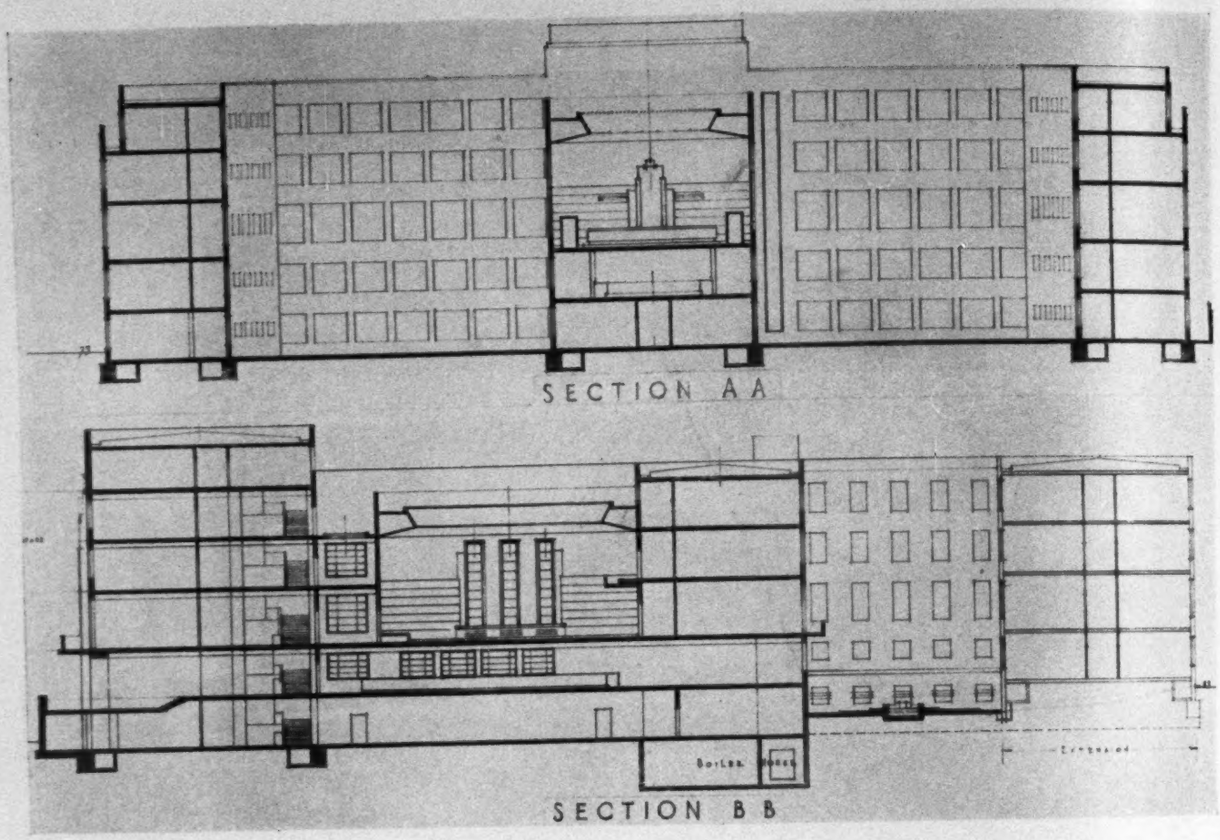
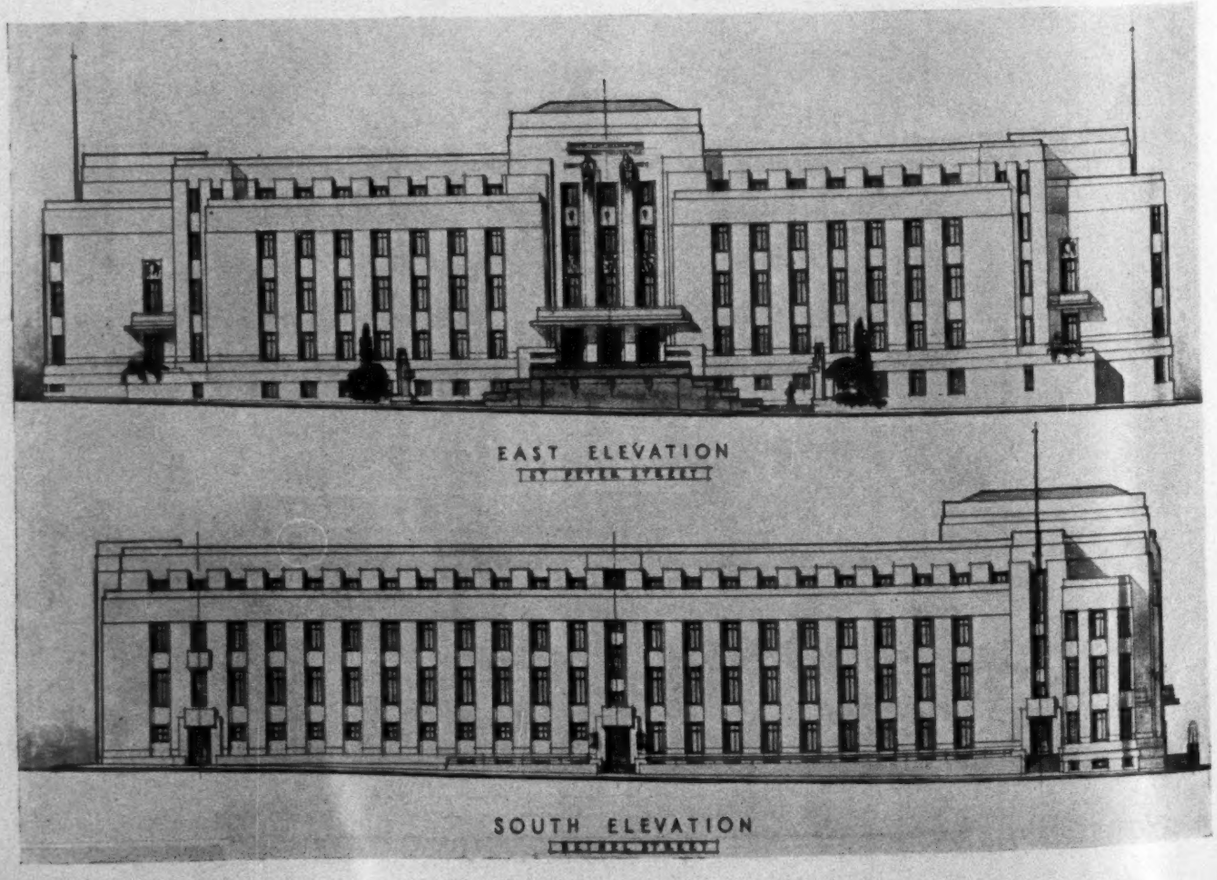
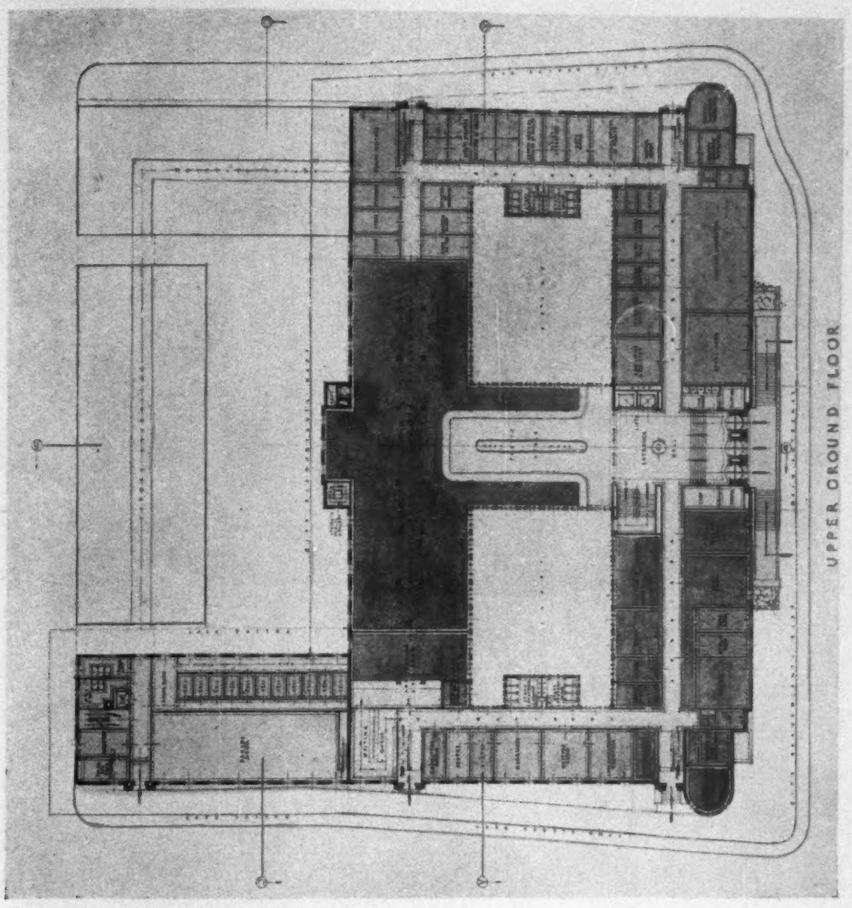
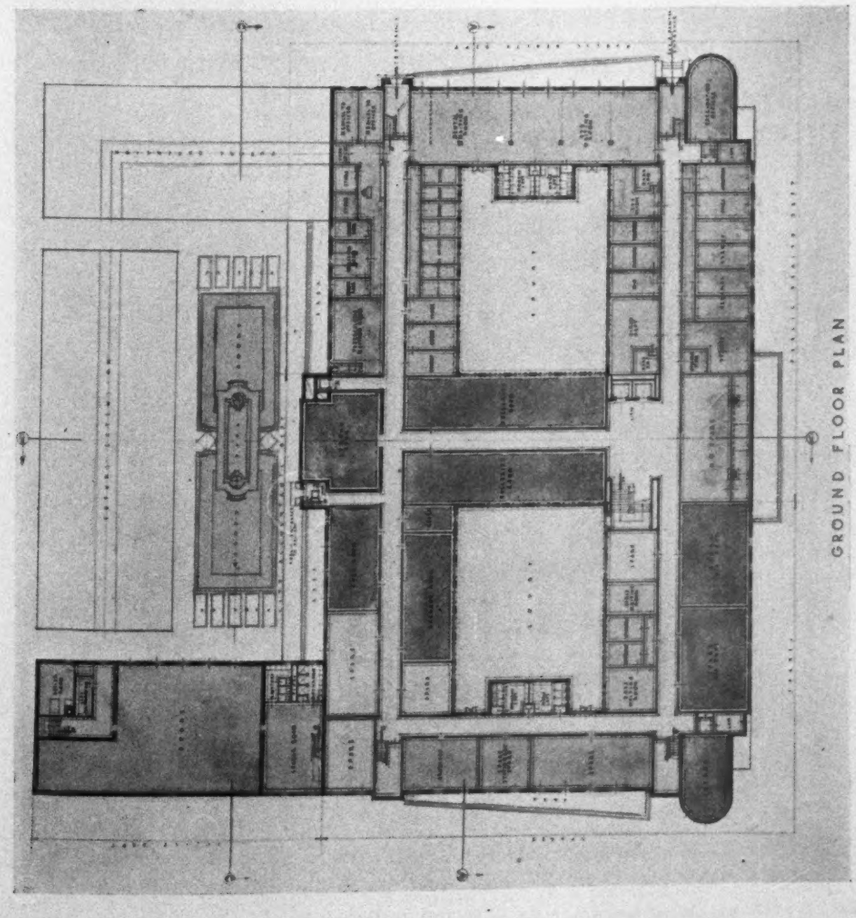




Norwich Municipal Buildings Competition : Second Premiated Design.

By Sir John Burnet, Tait and Lorne, FF.R.I.B.A.





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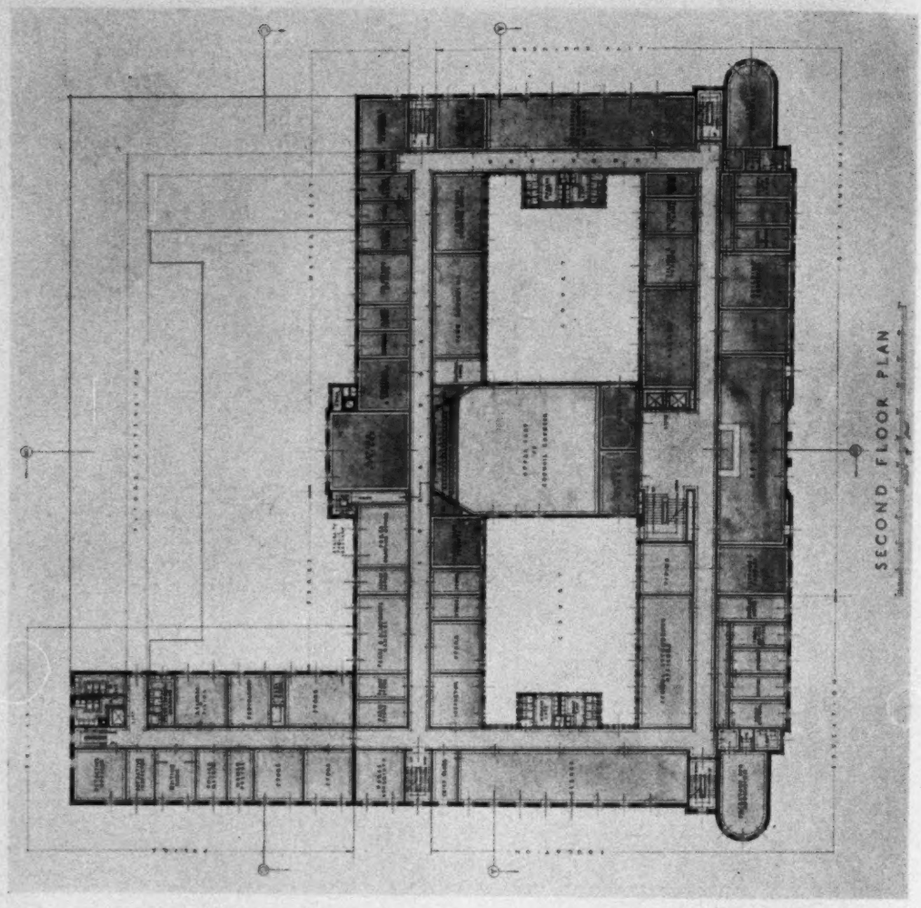

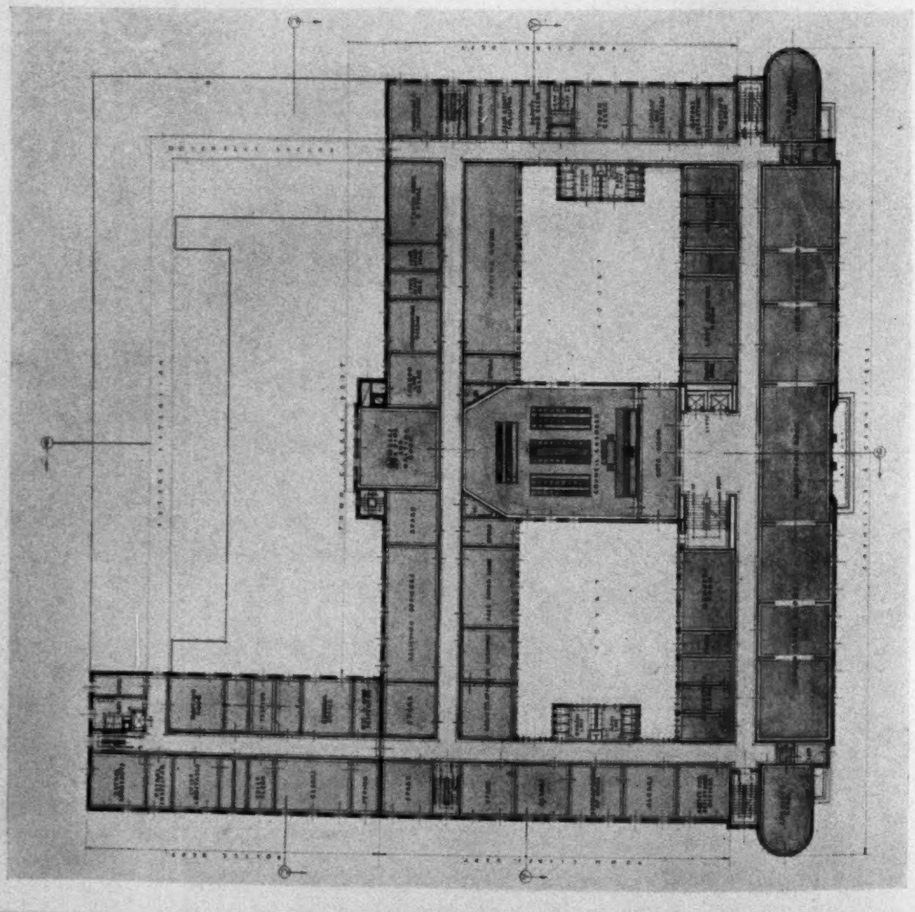

FIRST-FLOOR PLAN.

Norwich Municipal Buildings Competition : Second Premiated Design.

BY SIR JOHN BURNET, TAIT AND LORNE, FF.R.I.B.A.

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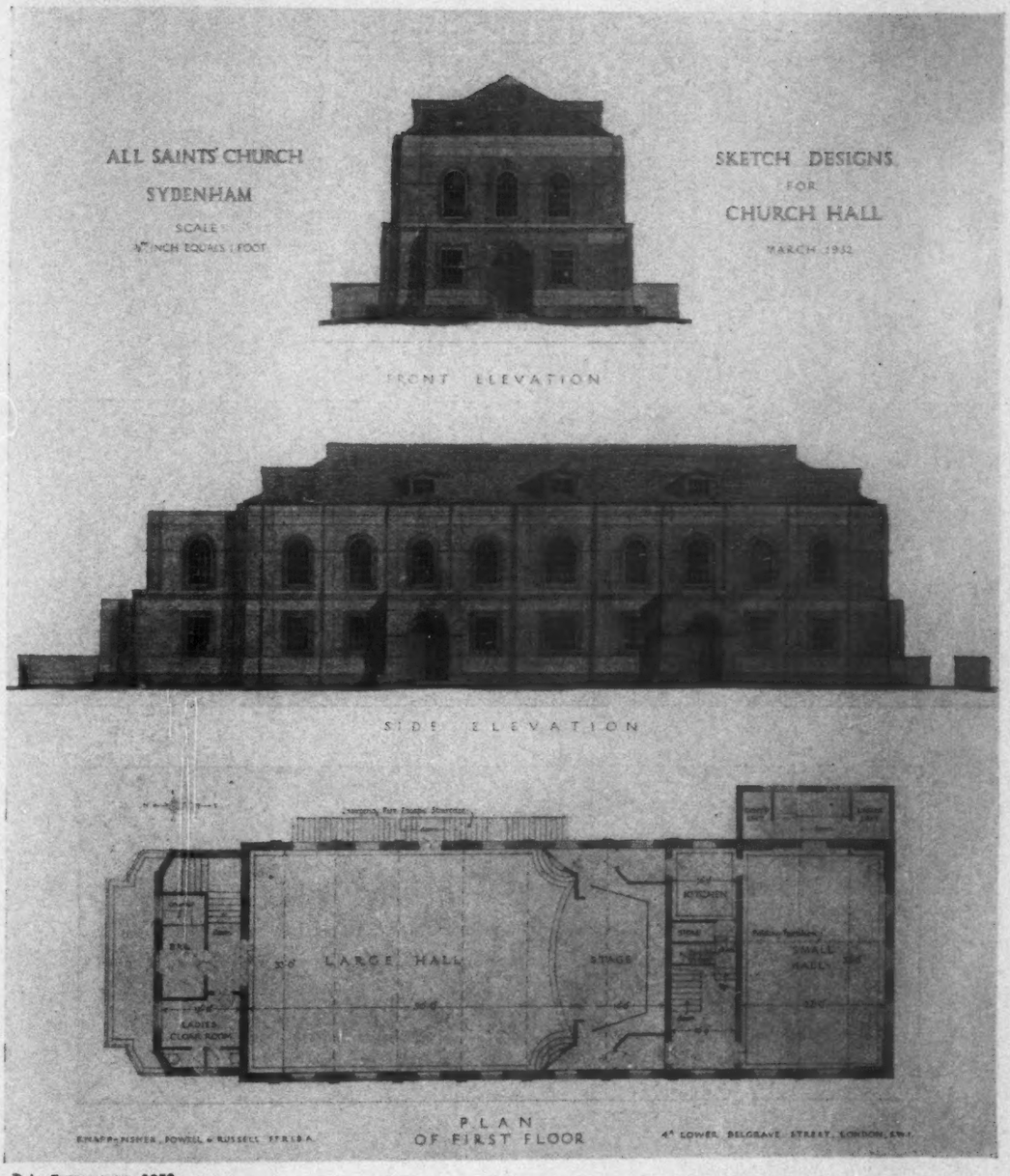
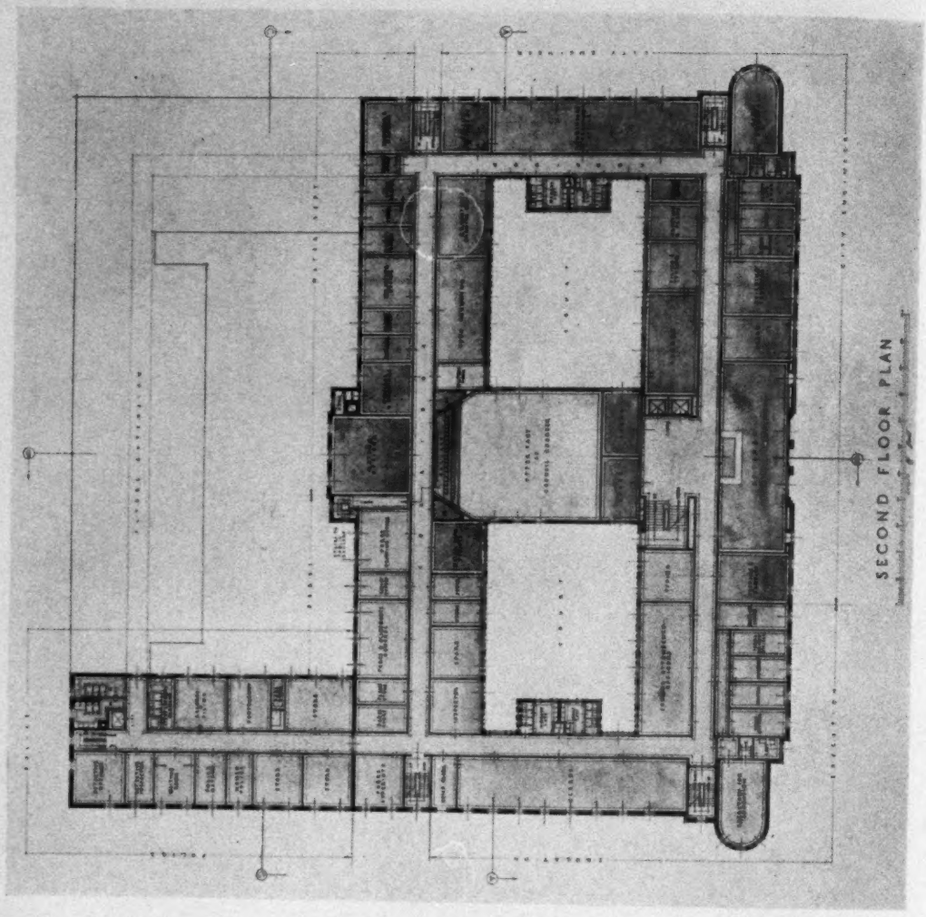
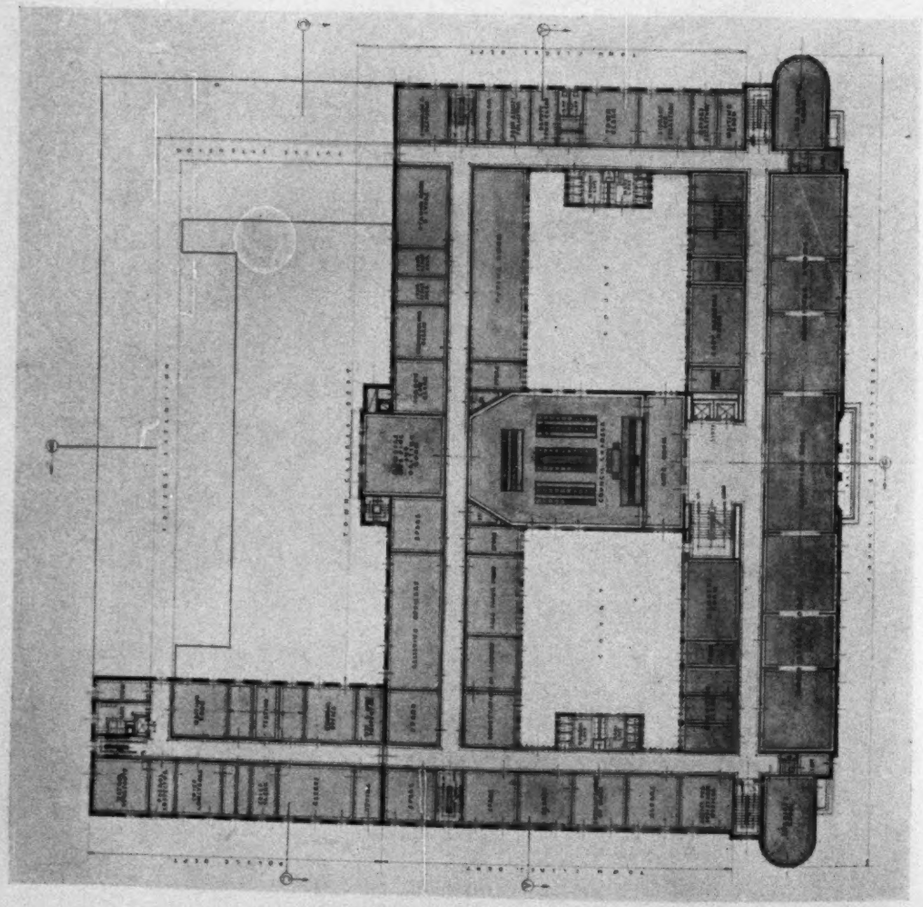


R.A. Exhibition, 1932.

Messrs. Knapp-Fisher, Powell and Russell, FF.R.I.B.A., Architects.



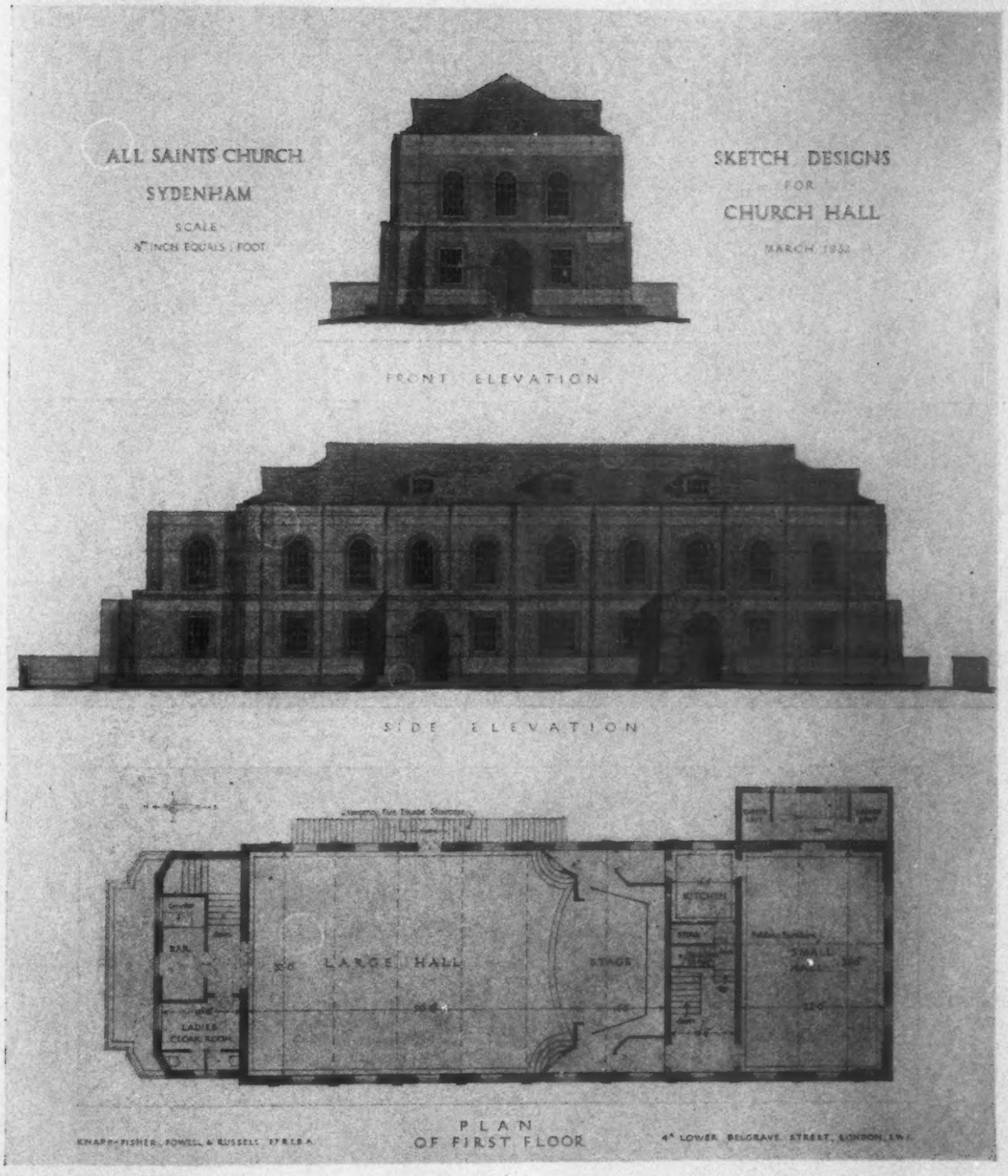


FIRST-FLOOR PLAN.

Norwich Municipal Buildings Competition: Second Premiated Design.

BY SIR JOHN BURNET, TAIT AND LORNE, FF.R.I.B.A.

London: Printed by THE PRESS PRINTERS, Ltd., 85, Long Acre, W.C.2, and Published by THE BUILDER LIMITED, at 4, Catherine-st., Aldwych, W.C.2.—May 20, 1932.



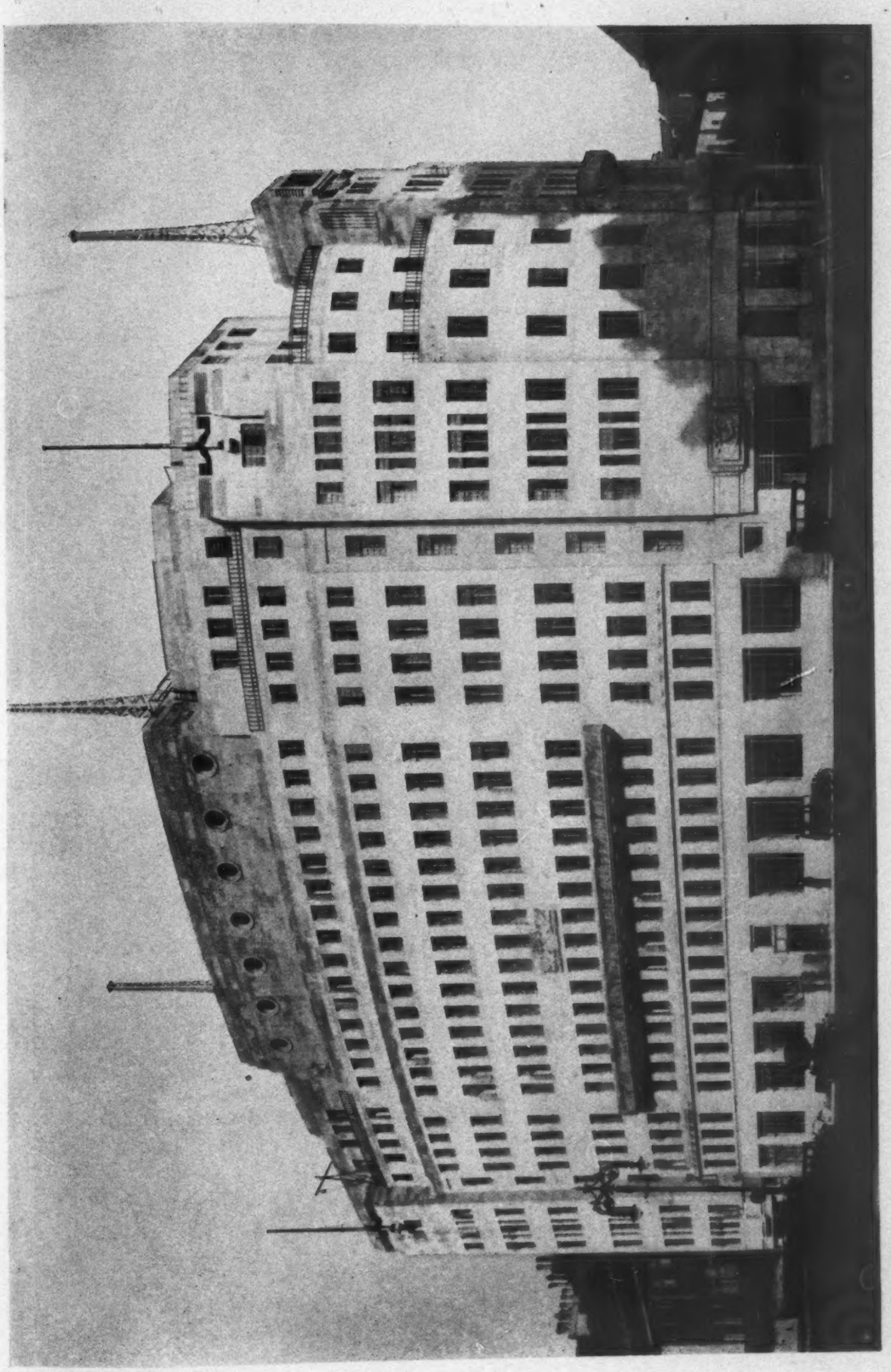
R.A. Exhibition, 1932.

Messrs. Knapp-Fisher, Powell and Russell, FF.R.I.B.A., Architects.

Design for a Mansion House.

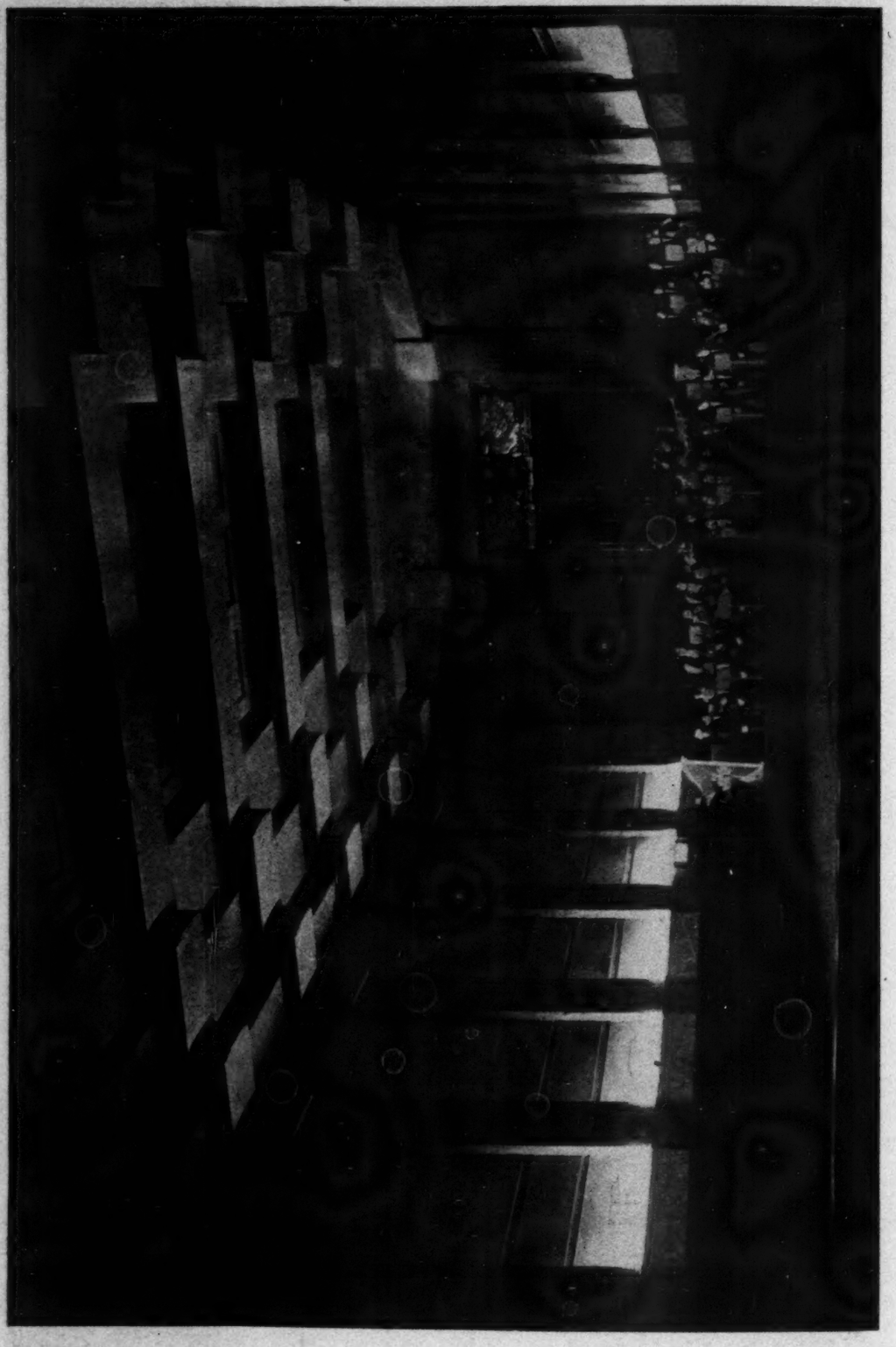
Mr. Charles E. Pearson (Messrs. C. B. Pearson, F.R.I.B.A., and Son), Architect.

R.A. Exhibition, 1932.



Broadcasting House, Portland Place, W.

LIEUT.-COL. G. VAL MYER, F.R.I.B.A., Architect.



Broadcasting House, Portland Place, W.: Concert Hall.

LIEUT.-COL. G. VAL MYER, F.R.I.B.A., Architect.

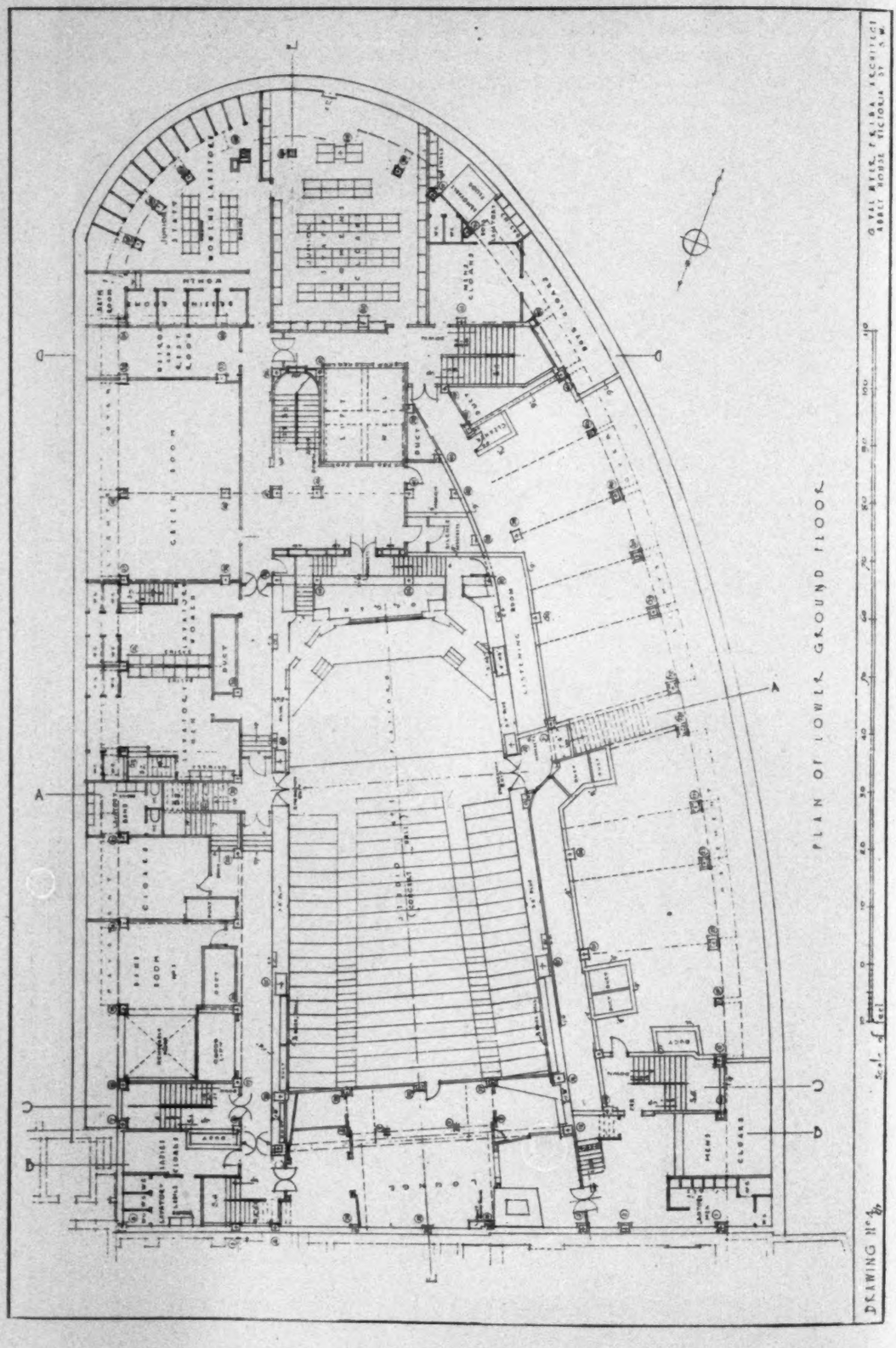
Entrance Hall.

Lieut.-Col. G. Val Myer, F.R.I.B.A., Architect.

Vaudeville Studio.

Designed by Mr. Raymond McGrath, A.R.I.B.A.

Broadcasting House, Portland Place, W.



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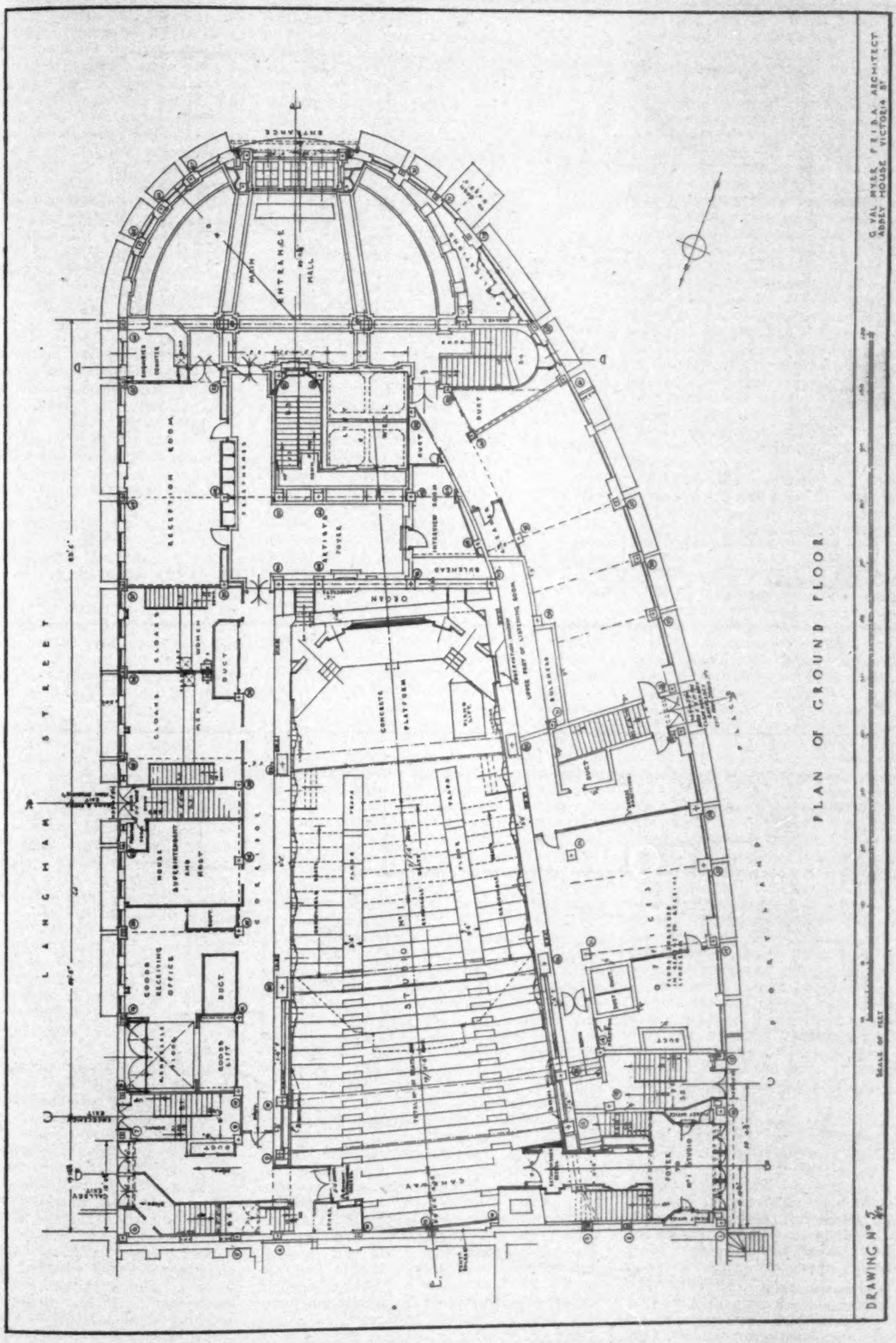

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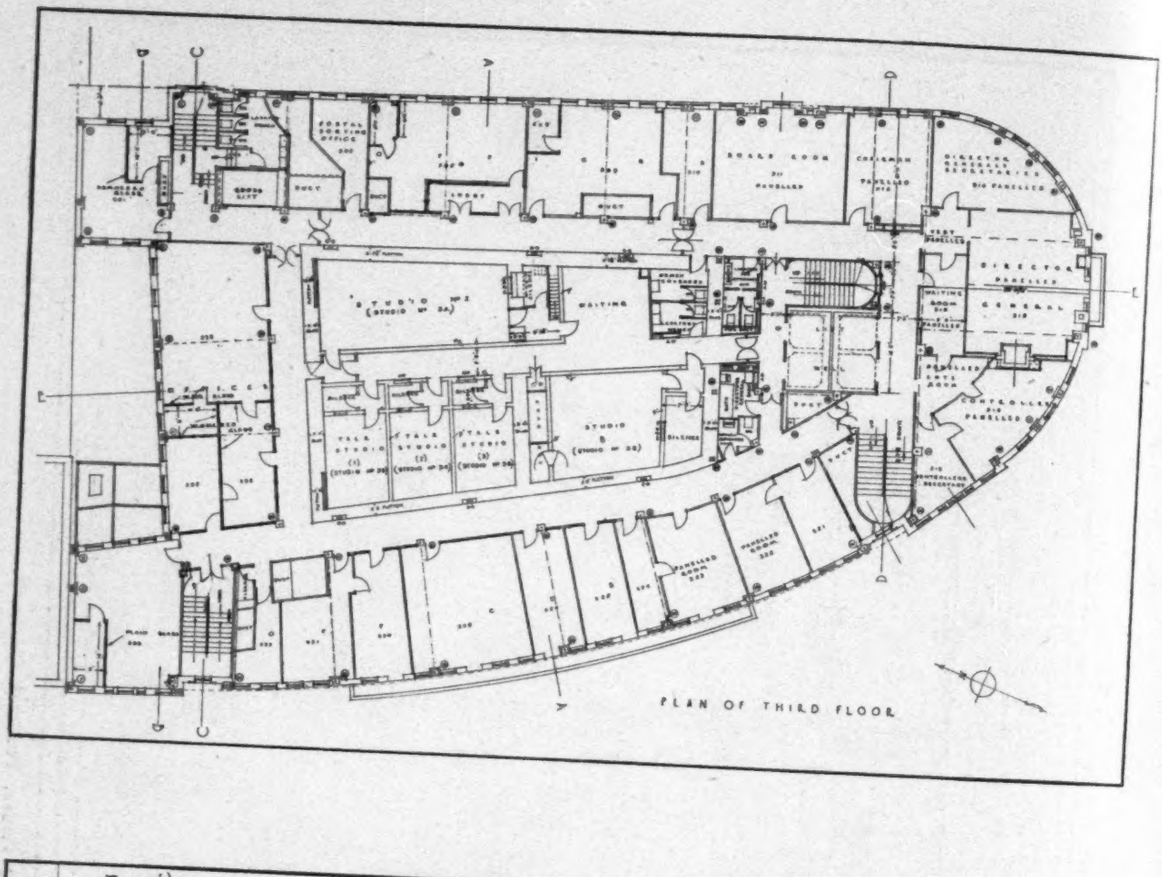

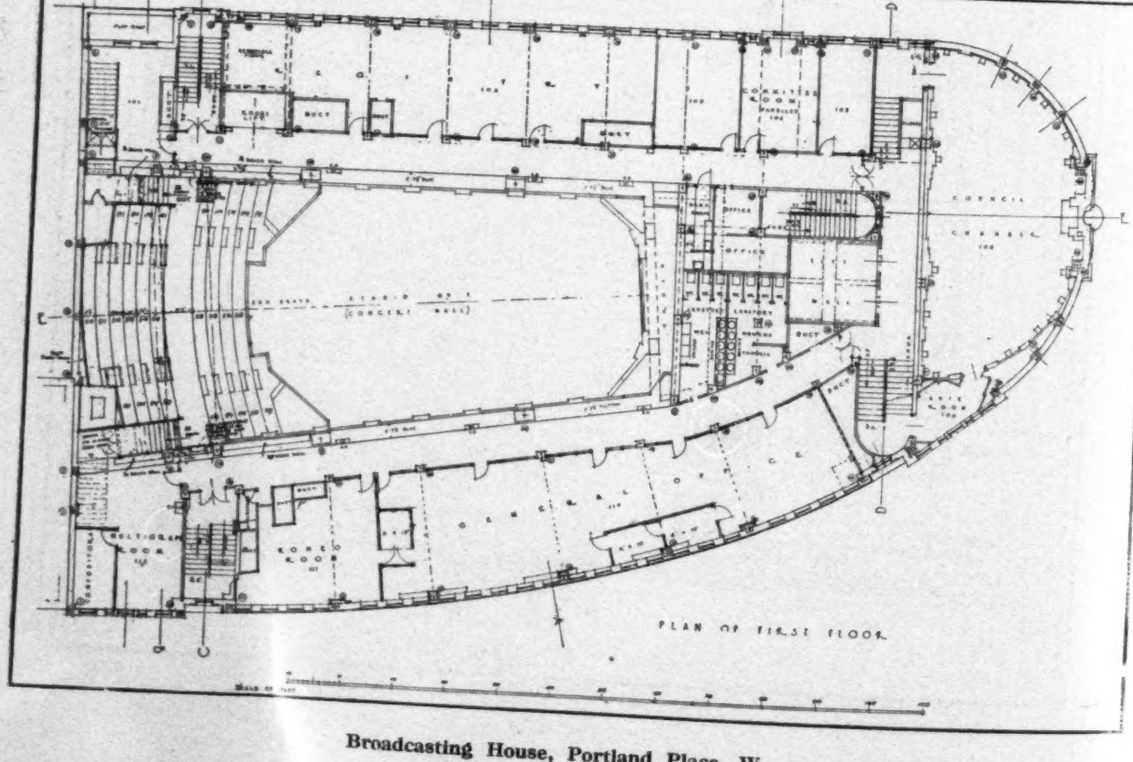

Broadcasting House, Portland Place, W.

LIEUT.-COL. G. VAL MYER, F.R.I.B.A., Architect.

BUILDING INDUSTRY COUNCIL OF REVIEW

THE Second Interim Report of the Building Industry Council of Review* embodies the results of a detailed examination of the Time and Progress Schedule system of organising building operations. There has been some surprise at the length of time taken by the Council to pursue their detailed work of investigation; but the Report explains how inquiries have been conducted over a wide field and on somewhat specialised lines. It shows how questions relating to cost reduction have assumed a greatly enhanced importance in consequence of the recent financial crisis.

Having regard to the fact that public authorities are responsible for about one-half of the total volume of building trade activity, it cannot be doubted that the industry will be seriously affected by the suspension of building schemes by these authorities in the period of drastic national economy on which we have now entered. In fact, already the total cost of the projected works which have been deferred amounts to many million pounds, and the acuteness of the crisis which the industry is experiencing cannot well be exaggerated.

It may reasonably be assumed that in a large number of cases the arguments for and against suspension are closely balanced. Consequently, the question of building costs has become more than ever before one of vital importance, and it may be a decisive one when first decisions are taken or at a later period when the possibility of reviving suspended schemes is considered.

Another important point for consideration at the present time arises from the developments now taking place in British industry. Fiscal changes on the one hand, and on the other a growing recognition of the need for reorganising many branches of industry, are likely to bring into being in all parts of the country schemes for the erection of new factories or the reconstruction or extension of existing works. Here again the cost of building will be a deciding factor in many instances. It appears to the Council, therefore, that it has become a matter of supreme interest to the industry "to intensify and accelerate all possible efforts to bring down building costs, and especially to do this by whatever improvements in organisation, method and equipment may be practicable."

The Report describes the Time and Progress Schedule and includes two typical charts, one British and the other American, which illustrate the general practice. The investigators state that the reality and substantial nature of the benefits to be derived from planning carefully the sequence of operations on a building site cannot be questioned. American experience, both in Canada and the United States, accumulated over many years, and covering a great diversity of building, affords conclusive evidence that very large aggregate savings can be realised by its efficient application.

The most important aspect of the question is admitted to be that of the earning and working conditions of the operatives. The operatives have already suffered a severe reduction in their wages. It is estimated that the spending power of the building operatives has diminished by over £7,500,000 during the last three years, and inevitably the adoption of the system promoting continuous steady work will have the temporary effect of rendering redundant a number of workers who now find more or less intermittent employment.

The Building Industry Council wisely do not shirk this question. It should be noted that both Mr. Barron and Mr. Coppock are members of the Council, and their influence is manifest in the section of the report which urges that the time and progress system cannot be equitably applied unless efforts are made within the industry to devise means to prevent hardship, and to deal with the labour displacement problem which might arise. A number of suggestions, such as the provision of maintenance during employment, are put forward. But the main recommendation is the establishment of a fully representative central council for the industry, which would endeavour to equalise building activities throughout the year, and eliminate seasonal fluctuations.

It is urged that all Government and local authorities responsible for public works could do much by scheduling projects well in advance. In conjunction with a body representing the whole industry it would then be feasible to arrange for the construction of the various works at such times as would facilitate the maintenance of building and employment at a uniform and adequate level over long periods.

Action of this kind in relation to private building would be more difficult, but even here something might be done—as American experience has shown—by periodical conferences between the representatives of the building industry and business men. Information could thus be gained relating to the extent to which building enterprises are contemplated, and arranging for the execution of the works in such a steady and continuous flow as would yield the greatest economic advantages to all parties.

Brief reference should also be made to another contribution which could be made on a wide scale to the solution of the problem of fluctuating seasonal employment. In several departments of building trade work, and especially in the section concerned with painting and decorating, much difficulty is caused by the practice of concentrating the greater part of the work in a relatively short period of the year. If indoor painting, for instance, were reserved as far as possible for the winter season there would be less rushed work and also much less seasonal unemployment than at present. Education authorities throughout the country could give valuable help in this direction by arranging for indoor painting of schools to be done during the winter as well as the summer holidays.

For the workers who remain employed under the time and progress schedule system the benefits are definite and substantial. It has been noted that the labour force required on any particular job can be clearly estimated. This circumstance, in conjunction with the orderly sequence of the work on each operation, makes it possible to employ the various groups of operatives enrolled continuously over the longest possible period, instead of in short rushes alternating with idle periods. Earnings are more regular. The fixed limitation of time for completing a building requires that every reasonable device be adopted by the contractor to give protection to the workers in inclement weather, and this, together with the other factors gives a greater possibility of extending the unbroken earning capacity throughout the year. Thus, the annual income may be at least one-third greater than is usually obtainable when the method of carrying on the job involves frequent suspension of work and waste of time. Moreover, with the mechanical aids which are most desirable though not absolutely essential for the realisation of substantial economies from the use of a time and progress schedule, the work of the operatives involves less fatigue.

It must be emphasised that the building industry council is a voluntary body, supported financially by several organisations It owes much to its chairman, Mr. Alfred Bossom, who has given generously towards the cost of the investigations carried out. Those who read this report carefully will see many indications of the possibilities in the future of organising annual building programmes over a period of three to five years. The council provides an instrument that may well be used in the future for this purpose. At no time was it more necessary to bring about reforms from within and also to relieve the burden of unemployment which is one of the present curses of the building industry.

According to the Report, a special document dealing with the educational needs of the building industry and relating to the training of those who will be the master builders of the future will be published in the reasonably near future. It is to be hoped that this will meet the need for the reform of our present antiquated methods of allowing entry into the industry. There is need of much more control and for the provision of a link between the rank and file of the operatives and the leaders of the movement. It is well known that such far-seeing men as Sir Walker Smith, Mr. Barron, Mr. Collier, and Mr. Coppock have been giving this aspect of the industry a good deal of attention, and it would be useful to have clear-cut proposals put forward that may be carefully considered.

In the meantime, this Report, urging building owners, whether they be private individuals or public authorities, to study the advantages of a Time and Progress Schedule, will arouse considerable interest. The Council have thus summarised their conclusions.

The outstanding results of the Time and Progress Schedule are as follows :—

The time of construction is much reduced. The saving may be as high as one-third—that is to say, a building which would take two years to complete by the old methods might be finished in one year and four months.

Unremunerative capital charges are saved during the period by which the time of construction is shortened. This is an important consideration, especially in the case of extensive building operations.

More efficient organisation of the work on the building site is essential to ensure the operation of the system, and this results in a substantial reduction in construction costs.

A serious amount of waste of material and labour which has hitherto been regarded as inevitable, and which has been allowed for in all estimates, is eliminated by the adoption of the Time and Progress Schedule.

While lower costs resulting from improved organisation will tend to bring about expansion of building activity and employment, a possible temporary problem of apparent labour redundancy arising from the elimination of the waste of time of workers must be recognised as a possibility. A contribution to the solution of this possible temporary problem would be made if public buildings of all kinds could be arranged so as to constitute a reservoir to maintain employment at a consistently uniform and adequate level.

Progress in this and other directions, leading towards the equalisation of building activity and the elimination of the present seasonal acute fluctuations, would be facilitated if a fully representative Central Council for the building industry were established.

The working conditions of the operatives remaining employed on buildings constructed on the Time and Progress Schedule system are improved. They are assured of greater continuity of employment, and their *annual* earnings are correspondingly increased.

The system cannot be operated at its best without the full co-operation of the building owner, whether a private individual, a company, or a public authority. It involves definite decisions at the outset on every important detail of the work; otherwise the time limits and the sequence of the various operations cannot be fixed.

The cost of delays and waste, resulting under the old system from deferred decisions on important matters, has to be borne by the building owner, and in the case of public schemes ultimately by taxpayers and ratepayers. Consequently the adoption of a system under which this cost is eliminated is not simply a matter of technical interest to those engaged in the building industry, but is one of the greatest importance to the whole community.

The following are the members of the Building Industry Council of Review :—President, Lord Amulree; vice-presidents, the Rt. Hon. Sir J. Tudor Walters, Sir Banister Fletcher, Dr. Raymond Unwin; chairman, Mr. Alfred C. Bossom, M.P.; members, Sir J. Walker Smith, M.P., Messrs. Sydney Tachell, George M. Burt, Christopher Chart, Arthur G. Cross, Thomas Barron, R. Coppock, H. J. C. Johnston, J. D. Stitt, H. Cunningham, Hugh Davies, Walter Meakin, Howard Robertson, Herbert A. Welch, B. S. Townroe, and H. B. Bryant (secretary).

* Price 6d., from Mr. H. B Bryant, the Secretary, 5, Duke-street, Adelphi.

TOWN AND COUNTRY PLANNING BILL

Further consideration of the Town and Country Planning Bill was given in Standing Committee recently.

Mr. Smith-Carrington moved an amendment to enact that a new building replacing a building which had been demolished or destroyed should come within the category of "existing buildings" if it were erected within three years of the demolition or destruction, instead of the twelve months provided in the clause.

Mr. E. Brown, Parliamentary Secretary to the Ministry of Health, said that three years would be too long, but as a compromise he would accept two years.

This was agreed to.

Sir E. Hilton Young explained to the Standing Committee the levy which is to be imposed on landowners for betterment as a result of improvement schemes. He said that he proposed to deal with the question by the method that the levy was only to be payable immediate in respect of betterment of the existing use of land, and that if there was a change in the use there might be a claim on the part of the local authority for the additional betterment. For example, a man who had a park and intended to keep it for use as a park could not be charged for betterment, in view of the fact that his land had been improved for building sites. Since the charge could be imposed immediately only in respect of the existing use of the land, the owner had an immediate means of realising the profit out of which the betterment could be paid. In regard to agricultural land, and other land of like nature, the owner could either settle the levy finally, if he preferred to do so, or he could have the levy deferred until he used the land for some other purpose. The right of the local authority was reserved to claim further betterment if and when the use of the land was changed. Substantial revision of clause 21 would be necessary on the report stage in view of this change; but it would only be a drafting change to bring the Bill into relation with this new proposal. He should like to reserve the opportunity to consider whether it would not be useful in the interests of both parties to insert a provision enabling the value of the land to be determined when the first claim was made, in order to provide a datum line for any future claims. That might prove a useful means of preventing future squabbles as to what the actual value was before the betterment took place.

After some debate, an amendment embodying the proposals of the Minister was agreed to.

Clause 22 provides that a local authority could recover from owners 75 per cent. of the increase in value of their property which was due to the carrying out of a public improvement scheme, such as the provision of a park, or open space, a road, sewer, or any other public service of a permanent character.

Captain Waterhouse said that this clause had nothing whatever to do with town planning.

Sir E. Hilton Young said that the justification for the clause was that it might be a convenience to have as part of the town planning code provisions of an alternative method of procedure with similar objects to those of town planning. But it was not a part of the essential structure of town planning, and could be done without.

A motion to omit the clause was agreed to.

The Standing Committee then discussed the position of the City of London. Mr. Craven-Ellis moved an amendment to clause 46, which contains special provisions for the application of the Bill to the administrative county of London, to provide that the L.C.C. should not be in a position, when acting under the powers conferred on them by the Bill, to interfere with the special privileges of the City of London.

Mr. Selley explained that the L.C.C. had not had an opportunity of considering the question raised in the amendment. In the circumstances, it seemed desirable that consultation should take place between the City Council and the L.C.C. before the report stage of the Bill was taken. If he was not opposing the amendment it was on the understanding that, if it should be agreed to by the Committee, the question that it raised would remain open for further action should the result of the proposed consultations make that necessary.

Sir H. Jackson said that he had been asked to state that the Joint Committee of the Metropolitan Boroughs had decided to support the proposal that a special position under the Bill should be granted to the City of London.

Sir E. Hilton Young, Minister of Health, said that the representatives had made a statesmanlike gesture, and the Committee would be well advised to leave the question over in the hope that agreement would be reached. The Government hoped that the negotiations would be successful.

The amendment was agreed to.

Captain Waterhouse moved the omission of clause 48, which required the county and urban councils, in areas where the population exceeds 20,000, to submit in 1934, or not later than 1938, a scheme of town planning which might be made under the Town Planning Act of 1925.

Mr. Beaumont said that the clause was an attempt to force town planning on people who did not want it, and it would compel local authorities to incur expenditure at a time when economy was demanded.

Sir J. Nall said that the clause would involve the preparation of utterly useless and futile plans for unprogressive areas where planning had not been thought about.

Sir E. Hilton Young said that the clause was confined to land which could have been planned in 1925 or 1926, and it was a formal assertion of the duty which was placed on the local authorities concerned.

On a division, the Chairman announced that the clause had been retained by his casting vote.

R.I.B.A.

At a Council meeting of the R.I.B.A., held on Monday, May 9, members were elected :—

As Fellows.

H. J. A. Seeley.	L. Harrison.
W. H. R. Blacking.	A. R. Rason.
H. Clarke.	H. Wade.
D. Elliott.	

As Associates.

Miss B. A. Blades.	M. Mason.
R. M. Bremner.	W. H. Maton.
L. P. Burns.	Miss M. Pepler.
G. Dickinson.	A. Philip.
H. J. Doran.	C. Rosser.
Miss A. E. Hall.	R. B. J. Selby.
D. F. C. Ham.	J. Smith.
C. C. Handisyde.	J. P. Ward.
D. G. Hardie.	J. C. Wilson.
M. Joseph.	

As Licentiates.

F. L. Atwell.	J. L. Pickering.
S. A. Benner.	Lt.-Col. W. E. Puntis.
A. F. French.	K. Rayner.
G. E. Hardy.	W. H. Scott.
J. Ingoldsby.	F. J. Stevens.
T. Maxwell.	G. D. Wiles.
H. I. Newton.	F. R. Wright.
S. H. Pearce.	

R.I.B.A. District Surveyor Examination.

At the R.I.B.A. Statutory Examination for the Office of District Surveyor, held on May 4, 5 and 6, the following three candidates presented themselves and were successful in the examination :—Mr. E. L. Campbell, Mr. D. S. Jones, Mr. R. H. King.

R.I.B.A. Architecture Medals.

The Royal Institute of the Architects of Western Australia has recently decided to adopt the offer of the R.I.B.A. Council to provide a medal and diploma for a building of outstanding merit erected in the area of the Institute. The medal will be awarded for a building completed in the three years ended December 31, 1931, and the conditions upon which the award will be made will be similar to those governing the award of the London Architecture Medal. The Council of the R.I.B.A. have nominated Lt.-General Sir Talbot Hobbs, K.C.B., K.C.M.G., LL.D., F.R.I.B.A., to represent them upon the jury.

CONSTRUING DOCUMENTS

By W. T. CRESWELL, Barrister-at-Law, Hon. A.R.I.B.A., A.S.I., etc.

It is well established that all documents forming part of a contract must be construed *together* in order to come at the real intention of the parties and the true meaning of the contract. So if a building contract includes drawings, specifications, and bills of quantities, together with the formal contract, these must be construed together.

It is not of uncommon occurrence that when these documents have been prepared by different persons they are found to disagree in parts.

For instance, in a recent important building contract, it was found that the formal *printed* contract had one clause providing that the architect's decision in all matters appertaining to the contract was final and without review; but this had evidently been overlooked, and the specification included a clause providing for arbitration in case of dispute.

What, then, is the position? Which prevails?

The general rule in construing a contract is that whether the documents are printed or not they must still be construed according to their sense and meaning as collected from the terms used in the various documents. In the absence of any discrepancy equal importance is generally accorded to both printed and written words, but if any doubt as to the meaning arises, words filled in or added in handwriting to printed documents are given priority to printed words which disagree. Because it is obvious that the written words express the intention of the parties, having been used advisedly and in order to qualify the terms of the printed form. Furthermore, that they have been specially selected by the parties and the printed words are merely general formulæ to be adopted in typical cases, not necessarily in special cases.

In Robertson *v.* French (1803), 4 East 130, Lord Ellenborough, C.J., said that "words superadded in writing (subject indeed always to be governed in point of construction by the language and terms with which they are accompanied) are entitled, nevertheless, if there should be any reasonable doubt upon the sense and meaning of the whole, to have a greater effect attributed to them than to the printed words, inasmuch as the written words are the immediate language and terms selected by the parties themselves for the expression of their meaning. And the printed words are a general formula adapted equally to their case and that of all other contracting parties upon similar occasions and subjects."

Effect is always given to erasions and alterations *made previously to the signature* of a document; but, of course, if these are made by one party after the signature of both parties has been affixed, they do not affect the contract in any way. These alterations must be initialled by all parties to the contract.

Any further alterations mutually agreed must be the subject of new contracts unless they are covered by clauses permitting them to be made. But erasions and alterations should be avoided; and when well-known printed forms are used it is unwise to alter them without very great care and discrimination, because the clauses which go to make up the form have been very carefully drafted and also many of them are mutually dependent; so that if a new clause is inserted its provisions may not agree with some other clause, and dispute becomes inevitable.

Clopton House, Stratford.

Clopton House, Stratford-on-Avon, has been privately sold with the park of nearly 200 acres. It is understood that the house is to pass into private occupation, and it will, therefore, escape the fate of many old houses under present conditions.

ARCHITECTS' & BUILDERS' INQUIRY BUREAU

QUESTIONS.

Oriel Windows.

SIR,—Is there any objection, from a structural or maintenance point of view, to the formation of oriel windows in a smallish house? To my mind they give a charming effect to a house (both exterior and interior), but as one so rarely sees them now it struck me that there must be some real objection to them, or they would never have been allowed to fall into disuetude. IGNORAMUS.

Making Up Roads.

SIR,—I have a piece of land which is on the corner of two roads. The local council are going to make up the road to the main frontage. In the event of the council doing up and taking over the other road, what proportion of charges do I pay? I am under the impression I am liable for one-third on the flank road, but the council's clerk says I am liable to the whole measurements both ways. Who is correct? D. C.

Making Limewash Rub-proof.

SIR,—Can any of your readers inform me of a method by which limewash can be made rub-proof, *i.e.*, will not come off upon clothes, etc. RUSTICUS.

ANSWERS.

"Staircases."

[ANSWERS TO "STUDENT," MAY 13.]

SIR,—It must not be inferred that the London Building Act associated the dimensions of 10 in. and 7½ in. The dimensions were separately quoted and not in association.

A district surveyor in dealing with the plans of a suggested building would object to a stair of extremely bad proportions, but I do not see that he could maintain an objection to steps of 10 in. going and 7½ in. rise.

Unfortunately some designers do not regard stair design as of first importance; other considerations come first, and the stair suffers accordingly. STATUTORY SURVEYOR.

SIR,—The L.B.A. measurements give maximum rise and minimum tread within which a well-proportioned stair can be designed as, for instance, 10 in. by 6½ in. SETTER OUT.

Riveted Joint.

[ANSWERS TO "PULIT," MAY 13.]

SIR,—"Pulit's" views upon rivets and riveted joints are so primitive that I think he would be well advised to forget all his ideas and make a fresh start. I would suggest that he reads carefully pages 102 to 115 of Andrews's "Strength of Materials," from which he will learn the various ways in which a riveted joint may fail, the different forms such joints may take in practice, and the reasons for the several arrangements of rivets. There are two or three problems worked out in detail, which "Pulit" will find very helpful in realising how these joints are proportioned to meet given conditions of loading.

Morley's "Theories of Structures," also Andrews on the same subject, will be very helpful in the study of this problem of jointing. When "Pulit" becomes more familiar with these problems he will realise that the modulus of elasticity has much to say in all problems, and it would be difficult to find—I would say impossible—any book from which the symbol E is absent. If when "Pulit" has read and thought carefully about the matter referred to above, and has any troubles still remaining, with the Editor's permission I will help him further; but at this stage it would require too much space. P. Q. X.

SIR,—"Pulit" is nearly but not quite right. The rivets serve two purposes. They resist tension by their shearing strength, and they add frictional resistance between the plates. The latter is increased by the number of rivets. FORCE.

SIR,—The problem which your correspondent has set may best be solved by working out an actual example. Assuming the plates to be ⅜ in. thick and the rivets ¾ in. dia. Taking rivet values as follows:

¾ in. rivets in single shear .... 2.43 tons.
¾ in. rivets with ⅜ in. bearing .... 4.125 tons.
∴ Maximum allowable stress in bar using three rivets = 3 × 2.43 = 7.29 tons.

Taking tensile stress on steel at 8 tons per sq. in.

$$\text{Area of bar required} = \frac{7.29}{8} = .911 \text{ sq. in.}$$

Since bars are overlapped twice, this area must be taken into account = 1.822 sq. in.

Now

$$E = \frac{\text{Stretching force per unit Area}}{\text{Extension per unit length}} = \frac{W}{A} \div \frac{e}{L}$$

where E = Youngs Modulus = 30,000,000 lb. in. for steel.
W = Load = 7.29 tons.
A = Area of Cross Section = 1.822 sq. in.
L = test length = 8 in. (rivets at 4 in. centres).
and e = extension in in.

$$e = \frac{W \times L}{E \times A} = \frac{7.29 \times 2240 \times 8}{30{,}000{,}000 \times 1.822} = .0024 \text{ ins.}$$

This amount may be considered as negligible, thus explaining the reason why the modulus of elasticity is not applied to riveted joints. Again, if the centre rivet were to be removed the other two would fail by shearing. Therefore, the holes from which the rivet was taken would not be in line. This proves that the centre rivet must be stressed along with the others.

D. M. J. D.

Disposal of Effluent.

[ANSWER TO "RUSTIC," MAY 13.]

SIR,—The effluent should be passed through a filter to a catch pit, from which it may be pumped to a tank from which it may be discharged by gravity pipes to a ditch or watercourse. The availability of cheap electrical current suggests the mechanical means of the future. DRAINS.

Question of Acoustics.

[ANSWER TO W. A. W., MAY 13.]

SIR,—The most satisfactory cure would be to fix a false ceiling of ceiling board on joists at a height of 9 ft. or 10 ft. from the floor. There are other expedients which an expert could suggest on the site, but the actual conditions of the job would have to be viewed. SOUND.

Cellar Question.

[ANSWER TO "STREAM," MAY 13.]

SIR,—Form a small sump in the floor and arrange a pump to discharge into a convenient gulley. The pump could be (1) a small semi-rotary hand pump; (2) a small hydraulic ram worked from the main and self controlling; (3) a self-controlled electric pump. The running costs of the two latter would be very small. HYDRA.

Upkeep and Repair of Houses.

[ANSWER TO M. B. H., MAY 13.]

SIR,—Things have settled down to a level in which the percentage of 15 per cent. remains an adequate figure. Wanton damage would not be covered by this, and under strict supervision can be adequately dealt with in law. SUPERVISOR.

Centrolinead.

[ANSWER TO "DRAUGHTSMAN," MAY 13.]

SIR,—If "Draughtsman" will look into the catalogues of scientific instrument makers he will find full particulars. Or he could write to such firms as Stanley's, Harling's, Thornton's, Cassella, etc., and get all the particulars he requires. There are advertisements of these firms in *The Builder*.

P. Q. X.

Discoloration of Brickwork.

[ANSWER TO "F. A.," MAY 13.]

SIR,—Remove the liquid as used to cure dampness, using hydrochloric acid one pint to one gill of acetic acid. Then use a petrol blow-lamp on the discoloured brickwork. After this treatment the patches will have disappeared. Then treat the parts with melted paraffin wax applied hot. This can be coloured with aniline, soluble in oil, any colour, or can be left clear. STRAND.

ARCHITECTS' BENEVOLENT SOCIETY

THE annual general meeting of this Society was held on May 12 at 9, Conduit-street, Dr. Raymond Unwin presiding. Sir Charles Nicholson (Hon. Secretary) read the 82nd annual report, from which the following points are taken:—

"Eighty-eight applicants have been given grants during the year, of whom 35 were architects and architects' assistants, 42 were widows, and the rest orphans. Fourteen pensions have been paid. In all the sum of £2,067 has been distributed in grants and £678 in pensions. In addition the Council have distributed a further £40 from the Surveyors' Club Charitable Fund for specially deserving and necessitous cases. Subscriptions show a slight increase over last year; £1,319 having been received as compared with £1,289. This is the more gratifying in view of the difficult time we are passing through at present, and the Council's grateful thanks are due to all those members of the Society who have sent their usual annual subscription and made it possible for them to balance the year's expenditure. £234 has been received in donations.

"The Society's insurance scheme continues to make progress, £588 having been received in commission during the year. The Insurance Committee have now completed a scheme for the pensioning of architects' assistants to which reference was made in our last Report, and when the times are more propitious, particulars of it will be sent to all architects and architects' assistants in Great Britain. The scheme is already known to a number of architects. In connection with insurance, the Council would like to thank again *The Builder*, the *Architects' Journal*, the *Architect and Building News*, and *Architectural Design and Construction*, for the help they have given during the year in advertising the scheme free of charge in the pages of their papers.

"Unemployment in the architectural profession has been steadily increasing during the year, and the Council have to record that a scheme of relief . . . known as the 'Architects' Unemployment Committee,' is being run in conjunction with the Society. Subscriptions and donations have been received from all parts of the country, and forty men have been placed in work by the Committee through the London Society, the London Survey Committee, the Slum Clearance Committee of the R.I.B.A., and the Graphic Records Committee. The Council are glad to be able to report such a satisfactory beginning, and hope that further support will be forthcoming, so that the Committee may be able to engage a larger number of those who have applied to them for work. The forty at present employed represent less than a third of those who are eligible for help under this scheme, and do not include the much larger number who have to depend on Government unemployment relief."

£2,800 has been received to date, of which £1,800 represents donations and £1,000 subscriptions.

The Council of 1931, with the exception of Mr. L. G. Pearson and Mr. E. P. Warren (retired), were re-elected upon the proposal of Mr. Maurice E. Webb, seconded by Mr. L. S. Sullivan, additional members in Messrs. Maxwell Ayrton, C. McArthur Butler, J. Alan Slater, A. Saxon Snell and Sir A. Brumwell Thomas being elected. Mr. Maurice E. Webb (Hon. Treasurer) and Sir Charles Nicholson (Hon. Secretary) were re-elected unanimously upon the proposal of Mr. H. S. E. Vanderpant, seconded by Mr. E. P. Warren, as were the Honorary Auditors, Messrs. C. H. Brodie and Osborn C. Hills. A vote of thanks to these gentlemen, as also to Miss E. H. Mann, "whose invaluable work as Secretary had so largely contributed to the continued success of the Society," was accorded heartily upon Mr. Vanderpant's proposal.

A vote of thanks to the Chairman, proposed by Mr. F. R. Hiorns, concluded the meeting.

THE BUILDING TRADE

THE LESSONS OF EXPERIENCE.—XXI

By J. R. TAYLOR.

THE ECONOMIC PROBLEM AS IT AFFECTS BUILDERS.

In a world faced by a trade depression of unexampled magnitude and by economic problems that are taxing the brains of statesmen to their utmost capacity, the problem that faces the builder is one of exceptional difficulty where his financial position is such that he must keep going in order to live at all; and it is unfortunately true that, notwithstanding the popular impression that in post-war years the building trade has been operating under more than ordinarily favourable conditions, this is the position in which many builders find themselves at the present time. They must keep going, or go under as the result of ever-increasing strain. Such being the case, though the subject is an exceedingly depressing one, it seems that on balance more of good than evil is likely to result by looking realities in the face.

During the discussion of a paper on "Economics and Building," read by Mr. A. C. Bossom, M.P., F.R.I.B.A., at a meeting of the Architectural Association (*The Builder*, April 29, page 771), Mr. Richard Coppock stated that in his opinion there were now 100,000 unemployed members of the building industry who would never get back to work. Even though this statement is discounted a little on the score that no man can see so far ahead as to use the word "never," the statement is significant. According to the Ministry of Labour returns, the number of insured but unemployed persons belonging to the building trade on the register at March 21 exceeded 240,000, and this figure does not include building operatives employed by public works contractors, who are separately registered. To say the least of it, it is highly improbable that the figure will at any time during the present year fall below 100,000, and it is likely that after seasonal trade has again passed, the figure will again rapidly rise. It would seem, therefore, that there are at present, and as far as can be foreseen for some years to come, some 10 per cent. surplus operative builders. Figures of this sort convey more than one meaning, for it can hardly be gainsaid that if 10 per cent. of the operatives are surplus to requirements, no smaller percentage of master builders are in the same unenviable position.

In the case of the master builders, time will apply its own remedies, and there is already much evidence that the struggle for survival has set in. An illuminating instance may be quoted in support of this. A public authority recently advertised for tenders for a work of some magnitude, a good deal of which was of a rather hazardous nature, in that it presented the estimator with some difficult problems in pricing. Yet this authority received no fewer than 60 firm tenders from builders for this unpromising job, carrying heavy special risks without any prospect of commensurate reward.

The unfortunate part about this excessively keen competition is that in the long run no one can gain anything by it, for out of nothing nothing comes. Here and there it is possible that a building owner may obtain the doubtful advantage of having work carried out at a figure below actual cost, but this is more than offset by the community losses that will follow in the train of an increase in the already too large number of bankruptcies.

I am told that local authorities are more or less helpless in regard to permitting such an excessive number of builders to prepare tenders for any one work, and that they are compelled to announce publicly their willingness to receive offers, and must receive and consider them, no matter whence they come, nor how numerous they may be. This may be so, but it is not beyond the wit of man to devise some method of putting a check on it without sacrificing the public interest. A stiffening up as to the provision of ample sureties, and the forfeiture of substantial deposits in the event of withdrawal of tenders, would do something, but it would be only fair to convey a warning of these intentions in the preliminary advertisements.

Such measures, however, merely touch on the fringe of the problem; what is really wanted is that there should be some wider appreciation of the facts that lie just below the surface. Some far-seeing economists who have closely examined the question from the statistical side have pronounced an opinion that no one in authority has so far seen fit effectively to contradict. In their judgment, the machines have reached such a pitch of efficiency that at no future time will man's labour again be required for carrying on the world's work to anything like the same extent as in former times. This in regard to mass productions may well be the case, for we know in the building trade that many articles can be sold to-day at less than pre-war cost, despite the great increase in all overhead charges and all other oncosts other than those of machining. This has only been made possible by a lessening of labour costs, and operations formerly requiring manual skill are more or less automatically performed by the machines. It is, however, a little difficult to suppose that the displacement of labour in the general work of the builder will be on the same scale or come about with such rapidity as is threatened in some other trades. But, at the same time, we cannot afford to close our eyes to facts, and even in the post-war period the machines have made an extraordinarily rapid advance, and have displaced a great deal of the human labour that was formerly required on building construction. The present time is an opportune one for a close examination of the issues as they at present are affecting us, and for forming some estimate of how they are likely to continue to affect the building industry as a whole.

Fifty years ago the one sure way to prosperity was to speed up production and lessen costs. Piecework was adopted wherever possible, except on the best class of building works, where quality and finish were of greater importance than costs. The machines could not, at that time, offer us an altogether satisfactory finish, particularly in regard to joinery work, and the cleaning up of mouldings and forming of scribings, used up nearly as much joiners'-time as would have been required to stick them on the bench. Nor did the architect's conception of fitness in detail lend itself so readily to machine operations. But the improvements made in tool steel, both sped up and increased the quality of the machines and products, and the architect—that last hope of the craftsman—has almost everywhere struck his flag. The machine has conquered, has come to stay, and there is not, therefore, enough work to go round; and unless prosperity returns to trade generally on such a large scale as to be without precedent, there can be little hope of there ever being enough work to go round, unless we adapt ourselves to the machine. There seems to be but one way in which we can do this—a further reduction of hours.

There are, however, two sides to every question, and it is unwise not to examine both of them. Included in the numbers of the unemployed building trades operatives there is a percentage of men who, to put it as lightly as possible, would not be selected by anyone wishing to carry out work for which an estimate of cost had to be given in competition. In proposing a reduction of hours I do not wish to bring about such a demand for additional men that these members should be brought in and adversely affect output per man-hour in the way that was done in the immediate post war years. I would therefore propose for the present that we move cautiously until the experiment has proved that we could safely go further. It would seem that the best way would be to cut out the not very productive hours worked on Saturday mornings, leaving the other five days unaltered. At the time of writing, the official figures for April have not yet reached me, but I understand that they not only show some increase in the number of unemployed in all insured trades, but the usual seasonal increase of employment in the building industry. For present purposes we need not go into decimal places, but use some easy figures that will give approximate results. We will take the insured members of the trade to be 850,000 and the number unemployed to be 230,000, which gives us a figure of employed standing at 620,000. Next, taking the year through and allowing something for wet time and for holidays, but setting against that something for overtime, we shall not be far off the mark if we estimate the present average week to represent forty-four hours. This gives us (620,000 × 44) = 27,280,000 man-hours as our present weekly output. For the same output of over twenty-seven million man-hours per week we should, if we reduced the hours worked to an average of forty per week, require to bring into employment immediately sixty-two thousand additional men. Such a result may bring home to some readers a realisation of the importance of the building industry; but it also shows that the salvation of all industries is more likely to be achieved by an effort coming from within them than from without.

I do not propose to deal with the question of the finance of such a change-over, as that is a subject best left to negotiation. It may be that the upshot would be a compromise, and some temporary sacrifice may be required from all sides; but a sacrifice that goes some way towards putting industry on its feet again is not a real sacrifice but an act of prudent courage.

THE BUILDING RESEARCH STATION

QUESTIONS AND ANSWERS.*

The following abstracts of inquiries represent a number of those recently submitted to the Building Research Station. The information given in the replies quoted is based on available knowledge. It has to be borne in mind that further scientific investigations may, in the course of time, indicate directions in which the replies might be supplemented or modified. Moreover, the replies relate to the specific subject of each inquiry, and are not necessarily suitable for general application to all similar problems.

The Use of Ashes in Lime Mortars.

An architect wished to know what were the effects of using ground ashes as an aggregate for plaster undercoats and lime mortars. He had observed that the use of such materials is quite common in some of the cheaper forms of building.

Reply :—It is difficult to make a general statement concerning the use of such materials as ashes, as obviously much depends on their nature and cleanliness, etc. Where ashes are to be used as aggregates, they should, as far as possible, be thoroughly burnt, free from appreciable quantities of unburnt coal, and from vegetable and similar organic impurities. It is desirable that the fine material be removed by screening before grinding.

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Assuming ashes to be satisfactory in the above respects, they are likely to develop more strength in a lime mortar than ordinary building sand; this is due to the fact that certain constituents of ashes display pozzolanic activity (*i.e.*, have the property of combining chemically with lime to form a cementing material). Advantage is taken of this property in the "black mortar" popular in the North of England. It has to be realised, however, that the additional strength imparted to lime mortar by the use of ashes may be of no advantage if imperfectly burnt or unsound material is used, as trouble by blowing may then quite possibly occur.

It should be borne in mind that with such an aggregate, however well burnt, sulphur compounds are always present. While these compounds do not usually cause blowing in plaster or mortars, neither ash, clinker nor breeze concretes should be used in contact with steel, as they are likely to cause corrosion. Such corrosion is due both to the sulphur content of the materials and to the moisture which they tend to absorb. For plaster undercoats with ashes as aggregate it would be unsafe to use unprotected metal lathing; this is confirmed by cases of corrosion reported to the Station.

Roof Covering to Exclude the Sun's Heat.

An architect, in preparing plans for a covered market place, wished to know the relative values of slates and asbestos-cement as roof coverings with regard to their exclusion of the sun's heat.

REPLY :—The exclusion of the sun's heat in such cases touches upon a problem the implications of which are not yet fully realised in this country. In all cases of unwanted heat transfer, the practical man invariably thinks first of insulation, and, admittedly, if sufficient insulation be used, the sun's heat can be excluded successfully in this way. Examples are to be seen in the thatched roofs of this country and in the thick mud roofs of many tropical countries. The high thermal capacity of the latter is an additional safeguard.

Under modern conditions, however, massive roof construction is frequently not economically possible, and, for many purposes, is tending to be replaced by structures consisting of thin sheet materials upon light supporting frameworks. The power of such roofs to exclude the sun's heat, contrary to general belief, depends hardly at all on the thermal conductivity of the roof material, but is determined almost entirely by the character of its inner and outer surfaces.

Obviously, it is of advantage for the outer surface of a roof to reflect a high proportion of the solar radiation which is incident upon it, for only that fraction which is absorbed tends to heat the roof and to pass through to the space beneath it. The outer surface should, therefore, be as white as possible, since whiteness denotes high reflectivity for the light rays in which much of the sun's heating power resides. Whitewash, with a suitable binder, is commonly used upon glass roofs, and, on easily accessible roofs, could with great advantage be applied more generally. Its reflection coefficient when new is nearly 80 per cent., at least twice as great as most of the commoner roofing materials in their untreated condition (See Table 1).

TABLE 1.—THE REFLECTION COEFFICIENTS OF ROOFING MATERIALS FOR SOLAR RADIATION.

(Fuller information is available in the Annual Reports of the Building Research Board for the years 1929 and 1930.)

Material.	Reflection Coefficient. Per cent.
Clay tiles	19–57
Concrete tiles	9–35
Slates	10–21
Asbestos cement—White...	41
Red	31
Galvanised iron—New	35
Very dirty	9
Whitewashed... ...	78
Bituminous felt	12
Weathered asphalt	11

Alternatively, corrugated steel sheets coated with a vitreous enamel are obtainable which provide a permanent white surface.

Of the heat which is absorbed at the outer roof surface, part is lost upwards and part is transmitted through the roof downwards into the building. Remembering that, in general, non-metallic surfaces are good emitters of low-temperature radiant heat while metallic surfaces are the reverse, it is clear that the outer roof surfaces should preferably be non-metallic and the inner surface metallic.

The magnitude of these surface effects has recently been demonstrated experimentally at the Building Research Station. Four sheets of tin-plate, variously treated with black paint and whitewash, formed the lids of large boxes filled to within 4 in. of the lid with slag-wool and provided with blackened copper sheets laid upon the slag-wool. On a warm sunny day the following maximum temperatures were attained by the copper sheets in the various boxes.

TABLE 2. — TEMPERATURE MEASUREMENTS BENEATH TIN-PLATE SHEETS.

Condition of Specimen.		Maximum Temperature
Upper Surface.	Lower Surface.	Deg. F.
Black	White	112
Metallic	White	82
Metallic	Metallic ...	70
White	Metallic ...	60
Standard Shade	...	63

Adverting to the specific inquiry, it is stated that the two alternative roofs for the market are :—

(1) Asbestos cement sheets on steel angle purlins;
(2) Slates on boards and felts.

Of these roofs (1) would obviously be much the cheaper. The asbestos-cement would, of course, require whitewashing externally at intervals, say once a year in early summer, and, in view of the nature of the material, safe access to the roof and a safe means of doing the work should certainly be provided.

For the under-surface it is likely that a coating of aluminium paint would have considerable effect in reducing downward radiation, although the presence of a binding medium modifies to some extent the non-emitting properties of metallic aluminium.

The slate roof would also benefit by some form of surface treatment, but has an initial advantage in the appreciable thermal resistance of the boarding layer. Additional resistance could most easily be provided in the asbestos-cement roof by making it of double-sheet construction with a ventilated air-space between. For maximum efficiency the walls of the air-space should be of a metallic nature.

Pumice Concrete.

An inquirer asked for information as to the suitability of pumice concrete screeding for increasing the thermal insulation of concrete roofs. The pumice concrete would be used in place of a layer of hollow blocks, and would be covered with a floating coat of cement mortar before applying mastic asphalt.

Reply.—Where pumice concrete is to be used for the insulation of flat roofs in place of hollow blocks, the only radically different factor introduced is the high-drying shrinkage of the concrete. This is liable to lead to cracking, and some assurance is wanted that any cracks formed in the concrete will not lead to cracking of the asphalt. On this point the following observations seem to be justified :—

Cases have been observed where a good asphalt remained intact, although the supporting concrete was grossly cracked as a result of the use of unsound clinker in the screeding. Asphalt is regularly used over timber boarding without ill-effect. Shrinkage movements here must be infinitely greater than can occur with any form of concrete. The precaution is often taken of laying the asphalt on bitumen felt or waterproofed paper, and there is no apparent reason why a similar treatment should not be adopted when the mastic is laid on concrete; defects to which asphalts are liable are cracking due to formation of fissures in the supporting structure and the formation of blow-holes; the use of felt or paper must tend to reduce troubles of this kind. It is understood, however, that opinion in the trade is divided on the question of laying asphalt over felt or paper. To summarise, it does not seem that the substitution of a shrinking material need necessarily lead to any serious trouble with the asphalt.

It remains now to consider how the concrete can be applied in such a manner as to reduce the tendency to the formation of cracks of large dimensions. It is obviously impracticable to treat the pumice concrete as a plaster undercoat and to allow it to dry and shrink before applying the floating. Shrinkage, and the cracking caused thereby, can usually be made less objectionable if large areas of shrinking material are split up by suitable joints. If the concrete is divided into, say, 6 ft. squares, the dimensions of any cracks which form should be very small indeed, and even without felt or paper the risk of cracking in the asphalt should be remote. So far as the specification of the aggregate and workmanship for the concrete is concerned, the following remarks may be of assistance.

Lightweight pumice concretes can be prepared by the elimination of the finer gradings of normal pumice aggregates. Slabs have been submitted the density of which was as low as 37 lb. per cu. ft.

Specimens have recently been made at the Building Research Station using 1 part of normal Portland cement (by volume) to 6 parts of pumice aggregate, graded to give equal parts by volume of material 0-2½ mm., 3-10 mm. and 10-15 mm.; these weighed 49 lb. per cu. ft. This grading is believed to be common practice in Germany, where such concretes are extensively used.

Mixes suggested are 1 : 9 or even 1 : 12, with pumice aggregate graded all to pass ½ in. and not more than 20 per cent. through $\frac{3}{16}$ in. It is suggested that the concrete be cured damp for twenty-four hours and then in air under normal conditions, so that drying out occurs in about seven days. The floating may then be applied.

Cracking of Renderings.

In accepting a contract to carry out two-coat cement-and-sand rendering, the contractor had absolutely to guarantee the work against cracking, and to this end sought information and advice from the Building Research Station.

Reply.—It is an extremely difficult matter to ensure that no cracking will occur, and it is very much open to question whether, in the present state of the knowledge of the subject, it would be possible to guarantee complete immunity from cracking even if all the precautions were observed which could reasonably be suggested.

The problem is a complicated one; cement renderings may be said to crack in one of two ways :—(*a*) Major cracks which extend right through the rendering due to shrinkage over a comparatively large area; (*b*) a network of small cracks, usually known as "crazing," which may be confined to the surface and not extend right through the rendering. The subject of "crazing" of cement products is under investigation at this Station, but the data at present available are not sufficient to make possible a final pronouncement regarding its prevention. It may be stated, however, that the precautions which should be taken to eliminate the formation of major cracks will also assist in reducing the formation of "crazing."

The defects of cracking and crazing are primarily due to the property possessed by all cement products of shrinking as they dry out. The amount of shrinkage depends upon the amount of cement present and consequently, within limits, it is preferable to avoid the use of excessively rich mixes. The nature of the background which is to be rendered is also important; numerous failures of renderings over brickwork containing large amounts of soluble salts have been reported. In certain instances it has been found impossible to apply a rendering to brickwork of this kind, despite repeated attempts. The moisture content of

the brickwork is also important; obviously it should not be excessively dry, but it appears from reports that have been received that work done under very wet conditions is more liable to failure than when weather conditions are normal; this may, perhaps, be due to physical changes set up by large variations in the moisture content of the wall as a whole.

The precautions suggested are :—

(1) If the wall is very dry care should be taken to wet down before applying the rendering. If excessively wet, time should be allowed for a certain amount of drying out before rendering.

(2) Sand should be clean and well graded from coarse to fine. Uniform particle size and excessive fineness are factors which will call for a high cement content and this is undesirable.

(3) The mix should not be unduly rich; 2½ to 1 by volume should be regarded as the maximum permissible degree of richness, and 3 to 1 with a well graded sand would be preferable.

(4) Curing and maturing conditions should be carefully controlled. The work should be kept moist by frequent wetting down for a period of at least ten days. Particular attention should be given to this if the weather conditions are such as to give rise to rapid drying.

(5) Excessive trowelling brings a rich skin to the surface and should be avoided. No more water should be used than is required to bring the mix to a suitable plastering consistence.

An experimental area of rendering on a wall at this station, composed of equal parts by volume of grey and white hydrated lime with suitable sand has proved completely successful and shows no sign ot cracking or crazing.

(To be concluded.)

SIMPLIFICATION OF PLUMBING

THE resumed discussion of this question was held on May 12, at 9, Conduit-street, W.1, under the ægis of the Sanitation, Plumbing and Water Installation Panel, of the Advisory Council for the Building Industry. The chair was occupied by Mr. T. A. McIntyre (Chairman of the Panel).

After the Chairman had briefly outlined the trend of the discussion at the meeting on April 25 (reported in our issue for April 29), Mr. Francis Lorne, F.R.I.B.A., said that plumbing was purely a scientific matter and should be approached in a scientific way. He suggested that they should get into the habit of making experiments on things.

Mr. W. M. Smeaton (Acting Master, Worshipful Company of Plumbers) said there was no doubt in his mind that the one-pipe system demanded some considerable safeguards. In the one-pipe system they came back to the original system which was in operation in the times of their forefathers, but in that system to-day they had got to make quite sure that they were going to guard the position sufficiently clearly to carry off carbon dioxide gases which would accumulate in the soil and waste pipes. The first essential feature of sanitation was ventilation. Providing that sufficient safeguards were provided in connection with the ventilation and, providing, of course, that they were sufficiently keen to see that the craftsmen were fully competent to carry out the work, there might not be any difficulty in installing the system in some of the buildings in this country. They had got to remember that they were dealing with smaller buildings than appertained in other parts of the world, particularly America. One of the most gratifying things that came out in the previous discussion was the fact that it was essential for all those who were responsible for the designing, erection, and the plumbing of a building to get into conference together. It was a move in the right direction. It should be realised that the master plumber had devoted the whole of his life to his craft, during which time he had gained a good deal of experience, and that ought to be brought out in conference with those who designed and erected the buildings.

The Chairman observed that there was no idea, he thought, in anyone's mind that the one-pipe system should be installed compulsorily in this country. Manifestly to his mind, all they sought was that the one-pipe system should be permitted if the necessary safeguards were provided, and that it was not contrary to the health of the community.

Mr. W. Draper (St. Marylebone Borough Council) said he could see no reason whatever, with the necessary safeguards of good design, competent workmanship and perfect ventilation, why the new system should not be a perfect success in large buildings. He did not think it was applicable for one moment to the small house.

In the case of an hotel, it was cost which was the factor that must be the first consideration, and if those people responsible for the plumbing work could show a decrease on cost of 20 per cent., there was no earthly reason why it should not be adopted.

Mr. Sanderson (Westminster City Council) stated that thirty-five years ago, when he was engaged on the redraining of the Hotel Metropole, he had said, "Why do you want separate pipes for waste pipes; why not have them all in one pipe and have them properly ventilated?" and after that long time he had not changed his opinion. On the contrary his opinion had been strengthened, and he declared that the one-pipe system was the ideal system if properly ventilated, and given that, there was a good chance of reducing the cost. It seemed to him that the first thing they had to consider was the principle. If they agreed upon the principle, they could leave the details to the Technical Officer of the L.C.C., who would give consideration to the whole question and give all parties interested an opportunity of expressing their views upon their draft. He thought also that the by-laws should allow the alternative system. Speaking for himself and the majority of the officials in his department who were responsible for the drainage of the City of Westminster, they thought that the one-pipe system should be allowed.

Mr. R. H. Bew (Hackney Borough Council) said with regard to the carbon dioxide in the pipes, obviously if such matter passed through those pipe lines it was very necessary to provide adequate ventilation. What was the comparative cost? What were the comparative costs, taking two small buildings, of the usual uplift and the three-pipe system of plumbing?

Mr. E. C. Harris (Member of the Panel) said, as to the question of cost, he could not say unless he could examine a complete set of drawings and a lot of detail. They could say generally that a saving would be effected by the use of the one-pipe system. It was also obvious that in many buildings no saving would be effected, but in specific types of buildings there should be a definite saving.

Mr. Caldwell (Corporation of the City of London) stated that the Corporation of the City of London were looking into the question of the one-pipe system at the present time, but if the one-pipe system was allowed there should be a separate Code of By-laws for it. As far as they had gone in the matter, they had come to the conclusion that if the system ever came into operation it should be at the discretion of the local sanitary authority. A scheme should be submitted and that scheme should be considered on its merits.

Mr. E. E. Willis (St. Marylebone Borough Council) said they had, existing in London at the moment, by-laws made by the L.C.C. which were administered by 28 boroughs who read into them what they thought appropriate for their district. If they went in for this system in the metropolis or in the provinces he thought they ought to have some foolproof by-law which would be read intelligently by the officers who were considering it. It was the councils they had to get at. Was it possible to get unity of action among those who were on their local authorities?

Mr. A. N. C. Shelley (Ministry of Health) said he regretted that the discussion had been almost entirely confined to London. Although London pulled largely in the minds of most of those present, it was only part of the problem. Outside London opportunities had been given to experiment which had not been thought desirable by the legislative authority of the L.C.C. After a good deal of questing and consulting with various authorities the Minister of Health had decided some time ago to frame the Model By-laws, and that where they were put into force the one-pipe system could be adopted. In the Model By-laws would be found the safeguards for those various things which the Minister's professional advisers after consultation with outside experts had considered advisable. What the Ministry had aimed at in those Model By-laws, and what they had tried to induce local authorities to aim at, was to give the greatest possible freedom to the property owner, the architect and everyone concerned, so that the best use could be made of their property, their money and their brains with the least degree of control by the local authority.

Mr. R. Coppock (General Secretary, N.F.B.T.O.) said that unless they had some co-ordinated control of sanitary by-laws, all the amendments they were suggesting were a waste of time. What they had to consider was whether they could so standardise the general building programme of the country that the economic use of the buildings could be of material gain to the persons who occupied them. He said he did not think that there had to be very great safeguards in reference to the particular problem of drainage, in view of the methods by which the present London drainage system was operated. The London County Council was not a legislative body, it was purely an administrative body, and, as far as the sanitary by-laws were concerned, it was necessary that the Advisory Council should get busy to see if it was possible to get a unification or centralisation of control as far as this matter was concerned. The matter must obviously be optional to the local authority, and he thought they must be exceedingly careful.

At this juncture the Chairman stated that there had been handed to him a copy of a resolution passed recently by the Associated Master Plumbers and Domestic Engineers (London): "This Association is agreed that the one pipe system, as compared with the existing practice, will incur grave risks to public health unless the work is carefully designed and properly carried out. It necessitates the introduction of a National Code of Bylaws, and a standard minimum of specification with accompanying illustrations, together with the retention of the intercepting trap, and a form of licensing or registration of all persons, undertaking, installing, supervising or inspecting sanitary work."

The Chairman, in drawing the meeting to a close, stated that so much had he been impressed with the value of the views expressed at the discussion and with the importance of the question, that he hoped the Advisory Council would permit the Panel on Sanitation to call them together again when the Panel had considered the question and had some definite suggestions to put before them. He could assure them that as a Panel they would confer from time to time with the whole of the interests represented at the present meeting, in addition to any other interested parties. In conclusion, he said, it afforded him the keenest pleasure to move that a very hearty vote of thanks be extended to Mr. Lorne for giving them so much of his valuable time and his valuable counsel.

The vote of thanks was heartily accorded.

A Builder's Estate.

Mr. Charles Cleverly Paine, of Haverstock-hill, N.W., builder, who died on January 29, aged 90, left estate of the gross value of £75,125, with net personalty £55,402.

BUILDING SCIENCE ABSTRACTS

We have received the following information from the Building Research Station: The recently-published report on the weathering of natural building stones by Mr. R. J. Schaffer, of the Building Research Station, which has been widely reviewed, both in the technical and daily Press, is summarised at some length in Abstract No. 576 in the April issue of "Building Science Abstracts," now in the press. This report, besides describing the work carried out at the Building Research Station, constitutes a very thorough summary of the information published up to the present time in many parts of the world. The possessor of this document will therefore have at his disposal a valuable statement of present-day knowledge on building stones and their decay, which he will have no difficulty in keeping up to date by means of the abstracts of current literature on this subject, contained in the monthly issues of "Building Science Abstracts." The present number of the Abstracts also contains a digest of a report in which is set forth data that have been obtained at the Building Research Station on the influence of the time and pressure of auto-claving on the wet and dry strengths, and the free-lime content of sand-lime bricks (Abstract No. 617).

Among some 30 papers of interest to the clayware industry dealt with in the April issue of "Building Science Abstracts" are descriptions of methods of studying the particle size, chemical composition, microscopic structure and physical properties of clays (Abstracts Nos. 580-5), as well as an important report from a German source of a study of the elasticity and plasticity of saggar clays (Abstract No. 587). A matter of topical interest is discussed in a paper (Abstract No. 591) on the management of brick works in times of economic depression. Although the author refers specifically to conditions in Germany, his conclusions are capable of more than local application. With regard to the durability of heavy clay products in buildings, it is of interest to note that statistical study of the results of freezing tests on bricks carried out at the Chemical Laboratory of the Clayware Industry, Berlin, has confirmed the view that the resistance to frost is influenced to a greater extent by the shape and size of pores, internal strains and, above all, by lamination, than by total porosity as indicated by water absorption (Abstract No. 594).

It should be of interest to the cement manufacturer and user alike to compare the provisions contained in the new Yugo-Slavian specifications for Portland cement which are summarised in Abstract No. 635 in the April issue, which those of the British Standard Specification which was similarly dealt with in "Building Science Abstracts" No. 2307 of 1931. Fundamental problems connected with the constitution, hydration and hardening of Portland cement are dealt with in Abstracts Nos. 636-42, which summarise papers published recently by Japanese, Swedish and German research workers.

Reference was recently made to the hygienic value of ultra-violet solar radiation (Abstracts Nos. 413 and 546, March), and, in this connection, it is of interest to note that, particularly in the United States, so-called "dual-purpose" lighting systems are being increasingly used. These systems provide a combination of light for vision with ultra-violet radiation for health. This practice has led to study being made of the reflectivity in the ultra-violet of various materials used in the interiors of buildings. Reference was made to one such study in Abstract No. 2,217 of 1931. In the April issue of "Building Science Abstracts," mention is also made of an investigation of the reflectivity of paints and data of value to the paint producer and user will be found in Abstract No. 690.

Another subject bearing directly upon health has been discussed by a French writer who has studied the comparative liability of clay flooring tiles and other types of floor coverings to invasion and surface colonisation by bacteria (Abstract No. 595).

The concrete engineer will find information of value in the April issue of "Building Science Abstracts." A Swedish observer has studied the use of rapid-hardening cement at low temperatures (Abstract No. 633), while Abstract No. 728 summarises the regulations in force in Russia as regards winter concreting. The production of really durable concrete constitutes a problem of interest to many, and a German worker has recently studied the effect of the water/cement ratio upon the durability of concrete exposed to corrosive solutions (Abstract No. 626). Two other German workers report on the surface disintegration encountered on a concrete quay wall of an artificial fertiliser factory (Abstract No. 692). References were made in the February and March issues to papers dealing with the production and uses of light-weight aggregates in the United States. These are now supplemented by a description of a vitrified clay product which has recently been introduced into Sweden after some years' successful experience in Czecho-Slovakia (Abstract No. 631).

"Building Science Abstracts" forms the key to a vast store of information relating to building materials and their uses which is contained in the records of the Building Research Station, and is available free to all inquirers.

OBJECTION TO A CLEARANCE ORDER UNDER THE 1930 ACT

What was stated to be the first case under the new procedure provided by the Housing Act, 1920, in taking objection to clearance orders was tried in the High Court recently, and is now reported in *The Times*, April 7 (in *re* Bowman; South Shields (Thames-street) Clearance Order).

A clearance order was made by the South Shields Council in the Thames-street area on March 9, 1931, and, after a public inquiry had been held, was confirmed by the Minister on October 8 with modifications, but without excluding any house included in the original order. The advertisement required by section 11, sub-section (2), had been inserted in the newspaper circulating in the district. The applicant in this case was the owner of two freehold houses and the leaseholder of a number of others owned by the Ecclesiastical Commissioners in the area. The application to the High Court was made mainly on the grounds (1) that the order as made by the local authority was not in the prescribed form, since instead of the period of 28 days prescribed in para. (1) of the First Schedule to the Act for the vacation of the applicant's property the period of seven days was named; (2) that an essential part of the prescribed Form of Order was omitted, namely, the "starred" note, which indicated that an application to the High Court with regard to the validity of the clearance Order might be made under section 11; (3) that the Order was not within the powers conferred by the Act on the facts because (a) inadmissible evidence on extraneous matter was admitted in respect of overcrowding, and (b) that properties of the applicant did not come under the words in section 1 of the Act and had been included or not excluded.

In dealing shortly with the findings of the Court under the above three heads it is necessary first to set out material portions of section 11. Sub-section (3) provides that if any person aggrieved by an order desires to question its validity on the ground that it is not within the powers of the Act, or that any requirement of the Act has not been complied with, he may within six weeks after the publication of the notice of confirmation make an application to the High Court, and then by para. (ii.) it is provided that the court, if satisfied upon the hearing of the application that the Order is not within the powers of the Act or that the interests of the applicant have been substantially prejudiced by any requirement of the Act not having been complied with, may quash the Order either generally, or in so far as it affects any property of the applicant.

Now, as regards the third ground of complaint, which raised the question whether some of the houses were insanitary or not, the Court held that it was not open to an applicant to complain to the High Court that the local authority had made a mistake in fact as to a house being insanitary or unfit for human habitation: those were matters left to the local authority and the Minister. It might be that, where the allegation was that there was no evidence at all upon which the local authority could come to a conclusion that a clearance order ought to be made, the Court might interfere, but that was certainly not the case here, and that point would have to be decided when a case arose.

Then, as to the first objection as to the notice being wrong in specifying seven instead of twenty-eight days, it was contended that, owing to this mistake, some of the houses were never within the order, and the order must be read as though they were excluded, and that, although the Minister had amended the mistake, under par. 4 of the First Schedule it was provided that no modification by the Minister was to have the effect of bringing in houses not within the original order. The Court held that, although the original order could not have been enforced in that form on account of the mistake in time, it was, nevertheless, an order applying to those houses and could be modified, and the Court referred to the judgment of Lord Dunedin in Rex *v.* Minister of Health *ex parte* Yaffe (1931, A.C. 492).

Lastly, as regards the omission of the "starred" note, the Court intimated that it was inclined to hold that the note was not part of the order, but the Solicitor-General had said he did not wish to argue that on the present occasion. The Court, however, held that the omission of the note did not entitle anyone to say that the order was "not within the powers of the Act," and therefore the question was: Had the applicant been substantially prejudiced by its omission? The applicant had received a notice, apart from the order, informing him of his right to appeal, and two or three days before the time expired had given notice of his appeal, and the Court could not see how he had been in the slightest degree prejudiced. Thus on all grounds the application was dismissed, with costs.

The Victorian Electrical Federation.

Mr. R. A. Wyatt, manager of the Melbourne branch of the British General Electric Co., Ltd., has been elected president of the Victorian Electrical Federation for the ensuing year.

Huntly House, Edinburgh.

Huntly House, the sixteenth-century mansion-house in Canongate, has been restored by Edinburgh Corporation, and has now been opened as a Civic Museum. The house in 1636 was occupied by a Marquis of Huntly when he was released on parole from imprisonment in Edinburgh Castle. Apart from its function as a museum, the house itself and the manner in which it has been restored are interesting. The architects were Messrs. Mears and Carus-Wilson, FF.R.I.B.A., in co-operation with Mr. E. J. MacRae, city architect; and the carved stone panels are the work of Mr. C. Pilkington Jackson.

NEW BUILDINGS IN LONDON

Bethnal Green.—HOUSING.—The B.C. are inviting tenders for the erection of 73 tenements at the Claredale estate. The architect is Mr. E. C. P. Monson, F.R.I.B.A., Finsbury-pavement House, 120, Moorgate, E.C.2.

Brixton.—EXTENSIONS.—Messrs. Marshall & Tweedy, FF.R.I.B.A., 4, Cavendish-place, Cavendish-square, W.1, are the architects for the extensions and alterations which are to be carried out for Messrs. Quin & Axtens, Ltd., at their premises in Brixton-road, S.W.9. The steelwork contract has been let to Messrs. the London and Wales Steel Construction Co., Ltd., of 4-7, Greville-street, E.C.1.

Brixton. — REBUILDING. — Messrs. Yetts, Sturdy and Usher, 34, Gordon-square, W.C.1, have prepared plans for the rebuilding of the "Prince of Wales" Hotel, Brixton-road, S.W., for the Wenlock Brewery Co., Ltd., Wenlock-road, W.1.

Camberwell.—ADDITIONS.—Plans have been prepared by Mr. S. A. Heaps, L.R.I.B.A., architect to the L.G.O.C., 55, Broadway, S.W.1, for alterations and additions at the canteen, Camberwell Garage. Messrs. Bovis (1928), Ltd., 35, High-street, Marylebone, W.1, are the builders.

Camberwell Green.—BUILDING.—H.M.O.W. have placed the contract for the erection of Camberwell Green post office with Messrs. A. Roberts & Co., Ltd., 74, Earl's Court-road, W.8.

Canonbury.—EXCHANGE.—For erection of the Canonbury telephone exchange H.M.O.W. have placed a contract with Messrs. Limpus & Son, Ltd., Kingston Hill, Kingston-on-Thames.

Ealing.—FLATS.—Plans have been prepared by Messrs. Gale, Heath and Sneath, New Bridge-street, E.C.4, for a block of high-class flats in Hamilton-road. The work will be carried out by Messrs. Bagley Estates, Ltd., Heath-road, Twickenham.

Harlesden.—EXTENSIONS.—For extensions to Messrs. R. Woolf and Co. (Rubber), Ltd., premises in Alric-avenue, Bruce-road, Harlesden, N.W.10, a contract has been signed by Messrs. Franks and Simons, Ltd., of 340, Mile End-road, E.1. The steel works contractors are Messrs. H. Young and Co., Thornycroft House, Smith-square, S.W.1, and the quantity surveyors are Messrs. H. W. Langdon and C. T. Every, 292, High Holborn, London, W.C.1.

Hendon.—SCHOOL.—Plans are to be prepared for a proposed new school at Colindale.

Hither Green.—DEPOT.—The Chief Engineer of the Southern Railway Co. is preparing plans for a locomotive depot at Hither Green, S.E.13.

Holborn Viaduct. — REMODELLING. — We understand that a project is afoot for the remodelling of the City Temple, at £20,000.

Kilburn.—PREMISES.—New branch premises are to be erected for Messrs. J. Lyons and Co., Ltd., Cadby Hall, Kensington, W.14. Plans have been prepared under the direction of the company's architects' department. The work will be carried out by the Building Department, Hammersmith, W.6.

Marylebone. — RECONSTRUCTION. — Messrs. George Head and Co., 40, Baker-street, W.1, are the architects, and Mr. George Barker, 48, New-road, E.1, the builder, for the reconstruction of the "Duke of York" public-house, 2, Gateford-street, N.W., for Messrs. Truman, Hanbury, Buxton and Co.

Mitcham.—SCHOOL.—The Surrey E.C. are proposing to erect a new school on the Tooting Bec golf course. Messrs. Jarvis and Richards, 8a, Lower Grosvenor-place, S.W.1, are the architects to the Education Committee.

Newington Butts.—REBUILDING.—Messrs. H. C. Horswill, Ltd., 182, Green-street, E.7, have secured the contract for the rebuilding of the "Giraffe" public-house, 45, Penton-place, S.E. The owners are Messrs. Watney, Combe, Reid and Co., Ltd., brewers, Stag Brewery, S.W.1. The plans have been prepared by Mr. A. W. Blomfield, the brewers' architect.

New Malden.—CHURCH.—Messrs. Smee and Houchin, 22, Essex-street, Strand, W.C.2, have prepared plans for a new Wesleyan Church at Malden-road. The contractors are Messrs. Ekins and Co., Ltd., Great Northern-works, Hertford.

New Malden.—DEPOT.—Messrs. Carter, Paterson and Co., Ltd., 128, Goswell-road, E.C.1, are to have a new depot on the Kingston by-pass-road. Some time must elapse before the scheme materialises.

Paddington.—OFFICES.—Demolition work is in progress in connection with the erection of the new block of offices at Paddington Station, W.2, for the G.W.R. Co. The contract has been placed with the Greenham Demolition Co., Ltd., London-road, Isleworth. Plans have been prepared by Mr. P. E. Culverhouse, F.R.I.B.A., Paddington Station, W.2, and the builders are Messrs. Holliday and Greenwood, Ltd., Buckingham Palace-gardens, S.W.1.

South London.—BUILDING.—The Newington Licensing Justices have approved the following schemes:—Re-erection of the "Tabard Inn," Borough High-street; rebuilding "King John's Head," Southwark-street; "British Queen," East-street, Walworth; and "New Portland Arms," Wandsworth-road.

Southwark.—PREMISES.—We understand that Messrs. Montague Burton, Ltd., Hunsleet-road Mills, Leeds, are about to erect premises at the corner of London-road and St. George's-road, S.E.

Stepney Green. — EXTENSIONS. — Messrs. Elcock and Sutcliffe, FF.R.I.B.A., 60, Strand, W.C.2, are the architects for extensions to the London Jewish Hospital, Stepney Green, E.1. No contracts have yet been placed.

Surbiton.—REBUILDING.—Plans are in the course of preparation for the proposed rebuilding of Surbiton Golf Club House. The architect is Mr. J. D. Hossack, F.R.I.B.A., of 39, Maddox-street, London, W.1.

Wealdstone.—A new Brotherhood Hall is to be erected in Masons'-avenue. The contractors are Messrs. R. Dixon and Sons, Britannia Works, Park-walk, S.W.10.

Wealdstone.—SHOPS.—On a site in High-road a block of shops are to be erected by Messrs. G. Moss & Son, Ltd., 11, Station-parade, Ealing-road, Northolt. Mr. E. R. Taylor, 5, Manchester-square, W.1, is the architect.

Willesden.—FACTORY.—A further factory building is to be erected in Chase-road, N.W. The contract is being carried out by Messrs. Allnatt, Ltd., Chase Estate, Park Royal-road, N.W.10. Plans have been prepared by the staff architect, Mr. F. E. Simpkins.

NEW CINEMAS

Glasgow.—The new picture house for Mr. James Hamilton, picture house proprietor, 51, Melville-street, Pollokshields, will be erected to plans by the contractors, Messrs. Cowieson, Ltd., Charles-street, St. Rollox, Glasgow.

Glasgow.—It is stated that Mr. Charles McNair, 112, Bath-street, Glasgow, has prepared plans for reconstruction of the "Lyceum" Theatre, Govan, as a cinema.

Holsworthy.—Plans have been approved by the U.D.C. for a £1,500 kinema which a company wish to erect on a site in Bodmin-street, Holsworthy, Plymouth.

Kingston-on-Thames.—Although no contract has yet been signed, it is probable that Messrs. W. F. Blay, Ltd., Dowgate-hill, E.C., will carry out the work for the super-structure of the cinema proposed in High-street, Kingston-on-Thames. The architects are Messrs. Marshall and Tweedy, FF.R.I.B.A., Cavendish-place, W., in conjunction with Col. J. E Adamson, L.R.I.B.A., 56, Victoria-street, S.W.1.

Middlesbrough.—A new picture theatre is to be erected in Acklam-road, near Newport, for Mr. Jules Reubens. Plans have been approved. Mr. W. E. Haslock, F.R.I.B.A., Albert-road, Middlesbrough, is the architect. Tenders have not been invited.

Morden.—The Pitcher Construction Co., 57, Ashburton-grove, N.7, have obtained the building contract for erecting Mr. H. A. Yapp's cinema at Morden, Surrey. Messrs. J. Stanley Beard and Clare, F. and A.R.I.B.A., 101, Baker-street, W.1, are the architects.

South Shields.—Plans have been prepared for the immediate rebuilding of the Grand Electric Cinema recently destroyed by fire. The architects are Messrs. J. H. Morton and Sons, Martins Bank Chambers, Fowler-street, South Shields. A contract has not been let.

Strabane, Ulster.—Mr. James Lawson, Castle-street, Strabane, has prepared plans for the new cinema proposed by Messrs. Wilton and Barry, the Pallidrome, Strabane, Tyrone.

MASTER PLUMBERS AND DOMESTIC ENGINEERS

THE Associated Master Plumbers and Domestic Engineers held their annual dinner recently at the Holborn Restaurant, when the new President, Mr. W. H. Stitson, occupied the chair, and was supported by Mr. W. J. Stewart, M.P., President, and Mr. Ernest J. Brown, Director, of the London Master Builders' Association; Mr. H. D. Seales-Wood, F.R.I.B.A., Chairman of the National Registration of Plumbers; Under-Sheriff Champness, C.C., Clerk of the Worshipful Company of Plumbers; Col. W. H. Braithwaite, President of the National Federation of Plumbers and Domestic Engineers (Employers); Mr. Ion Dyson, President of the Institute of Plumbers, Ltd.; Mr. George Simpson, President, Edinburgh and Leith Master Plumbers' Association, and others.

After the usual loyal toasts had been honoured, Mr. W. J. Stewart, M.P., in proposing the toast of the "Associated Master Plumbers and Domestic Engineers," said one of their grumbles had been that there were too many sub-contractors employed, rendering the whole building industry largely a financial institution. Such a thing very often occurred in America, where a large firm took a contract at so much, and then sub-let the foundations, the steelwork, the floors, the walling, the plumbing and the painting, and the firm always managed to make a little out of the sub-letting. They did not want that kind of thing in this country; all they wanted was tradesmen. He did not think better plumbing work was carried out elsewhere than in this country. He had been in most of the countries of Europe, and over a large portion of America, where they found much more detail than in England, but there was not the same class of workmanship.

The Chairman, in response, said their attention would shortly be focussed on the one-pipe system. Their attitude towards this proposal could best be summed up in the resolution passed at their annual meeting:—

"This Association of Master Plumbers and Domestic Engineers (London) is agreed that the one-pipe system, as compared with the existing practice, will incur grave risk to public health, unless the work is carefully designed and properly carried out. It necessitates the introduction of a National Code of by-laws, and a standard minimum specification with accompanying illustrations, together with the retention of the intercepting trap, and a form of licensing or registration of all persons undertaking, installing, supervising or inspecting sanitary work."

Mr. Bertram I. Hellyer proposed the toast of "The National Federation of Plumbers and Domestic Engineers (Employers) and the Institute of Plumbers, Ltd.," in an appropriate speech, and Col. W. H. Braithwaite, President of the National Federation, and Mr. Ion Dyson, President, Institute of Plumbers, replied.

The toast of "Our Guests" was proposed by Mr. G. H. Kempster, and Major W. H. Champness (Clerk of the Worshipful Company of Plumbers) and Mr. George Simpson, President, Edinburgh, Leith and District Master Plumbers' Association, responded.

The toast of "The Immediate Past-President" was proposed by Mr. W. H. Smeaton, Acting Master of the Worshipful Company of Plumbers, and Mr. Chas. E. Robinson replied.

RATES OF WAGES IN THE BUILDING TRADE

AS AND FROM 1st FEBRUARY, 1932.

[Every endeavour is made to ensure accuracy, but we cannot be responsible for errors.]

	Masons.	Bricklayers.	Carpenters Joiners.	Plasterers.	Slaters.	Plumbers.	Painters.	Labourers.
Aberdare	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Accrington	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Aldershot	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	11
Alfreton	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Alnwick	1/5	1/5	1/5	1/6	1/6	1/5	1/5	1/0½
Altrincham	1/6	1/6	1/6	1/5	1/5	1/5	1/5	1/1½
Ashford (Kent)	1/2½	1/2½	1/2½	1/6	1/6	1/6	1/6	1/0½
Ashington	1/5	1/5	1/5	1/2½	1/2½	1/2½	1/2½	1/1½
Ashton-under-Lyne	1/6	1/6	1/6	1/5	1/5	1/5	1/5	11
Aylsham	1/2½	1/2½	1/6	1/6	1/6	1/6	1/6	1/0½
Banbury	1/3½	1/3½	1/2½	1/2½	1/2½	1/6	1/6	1/1½
Barnsley	1/6	1/6	1/3½	1/3½	1/3½	1/2½	1/2½	11
Barnstaple	1/4	1/4	1/4	1/4	1/6	1/3½	1/3½	11½
Barrow-in-Furness	1/6	1/6	1/6	1/6	1/4	1/6	1/6	1/1½
Barry	1/6	1/6	1/6	1/6	1/6	1/4	1/4	1/-
Basingstoke	1/3½	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Bath	1/4½	1/3½	1/3½	1/3½	1/6	1/6	1/6	1/1½
Bedford	1/4½	1/4½	1/4½	1/4½	1/3½	1/3½	1/3½	11½
Berwick	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Bexhill	1/5	1/5	1/5	1/5	1/4½	1/4½	1/4½	1/0½
Birkenhead	1/3½	1/3½	1/3½	1/3½	1/5	1/5	1/5	1/0½
Birmingham	1/8	1/8	1/8	1/9	1/8	1/3½	1/3½	11½
Bishop Auckland	1/6	1/6	1/6	1/6	1/6	1/8	1/8	1/3½
Blackburn	1/5½	1/5½	1/5½	1/5½	1/6	1/6	1/6	1/1½
Blackpool	1/6	1/6	1/6	1/6	1/5½	1/5½	1/5½	1/1½
Bognor Regis	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Bolton	1/3	1/3	1/8	1/6	1/6	1/6	1/6	1/1½
Bournemouth	1/6	1/6	1/6	1/8	1/3	1/3	1/3	11½
Bradford	1/4½	1/4½	1/4½	1/6	1/6	1/6	1/6	1/1½
Bradford-on-Avon	1/6	1/6	1/6	1/4½	1/4½	1/4½	1/4½	1/0½
Braintree	1/2½	1/2½	1/2½	1/6	1/6	1/6	1/6	1/1½
Brentwood	1/4	1/4	1/4	1/2½	1/2½	1/2½	1/2½	1/1½
Bridgwater	1/5	1/5	1/4	1/4	1/4	1/4	1/1½	11
Bridlington	1/3½	1/5	1/5	1/5	1/5	1/5	1/4	1/-
Brighton	1/5½	1/3½	1/3½	1/3½	1/5	1/5	1/5	1/0½
Bristol	1/4½	1/5½	1/5½	1/5½	1/3½	1/3½	1/3½	11½
Bromsgrove	1/6	1/4½	1/4½	1/4½	1/5½	1/5½	1/5½	1/1½
Bromyard	1/5	1/6	1/6	1/6	1/4½	1/4½	1/4½	1/0½
Bungay	1/2	1/5	1/5	1/5	1/6	1/6	1/6	1/1½
Burnley	1/1½	1/2	1/2	1/2	1/5	1/5	1/5	1/0½
Burton-on-Trent	1/6	1/1½	1/1½	1/1½	1/2	1/2	1/2	10½
Bury	1/6	1/6	1/6	1/6	1/1½	1/1½	1/1½	10½
Bury St. Edmunds	1/3	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Buxton	1/5½	1/3	1/3	1/6	1/6	1/6	1/6	1/1½
Cambridge	1/5	1/5½	1/5½	1/3	1/3	1/3	1/3	11½
Canterbury	1/3	1/5	1/5	1/5½	1/5½	1/5½	1/5½	1/1½
Cardiff	1/6	1/3	1/3	1/5	1/5	1/5	1/5	1/0½
Carlisle	1/6	1/6	1/3	1/3	1/3	1/3	1/3	11½
Chatham	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Chelmsford	1/4	1/4	1/6	1/6	1/6	1/6	1/6	1/1½
Cheltenham	1/4½	1/4	1/4	1/4	1/4	1/4	1/4	1/-
Chester	1/6	1/6	1/4½	1/4½	1/4½	1/4½	1/4½	1/-
Chesterfield	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/0½
Chorley	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Cirencester	1/3	1/3	1/3	1/3	1/3	1/3	1/2	11½
Clacton	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Colchester	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Coventry	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Cranbrook	1/1½	1/1½	1/1½	1/1½	1/1½	1/1½	1/1½	10½
Crewe	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Cromer	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	11
Darlington	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Deal	1/3	1/3	1/3	1/6	1/6	1/6	1/6	1/1½
Denbigh	1/4½	1/4½	1/4½	1/3	1/3	1/3	1/3	11½
Derby	1/6	1/6	1/6	1/4½	1/4½	1/4½	1/4½	1/0½
Devizes	1/2½	1/2½	1/6	1/6	1/6	1/6	1/6	1/1½
Dewsbury	1/6	1/6	1/2½	1/2½	1/2½	1/2½	1/2½	11
Doncaster	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Dorchester	1/3	1/3	1/6	1/6	1/6	1/6	1/6	1/1½
Dorking	1/3½	1/3½	1/3½	1/3	1/3	1/3	1/2	11½
Dovercourt	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/-
Driffield	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Droitwich	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Dudley	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Durham	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Eastbourne	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
E.Glam.(Mon.Val.)	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Ely	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	11
Exeter	1/5	1/5	1/5	1/5	1/5	1/5	1/4	1/0½
Exmouth	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Fakenham	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	11
Felixstowe	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Folkestone	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11½
Frome	1/3	1/3	1/3	1/3	1/3	1/3	1/2	11½
Glossop	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Gloucester	1/5	1/5	1/5	1/5	1/5	1/5	1/4	1/0½
Godalming	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Goole	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Gosport	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Grantham	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Gt. Yarmouth	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Grimsby	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Guildford	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Halifax	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Harpenden	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Harrogate	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Hartlepools	1/6	1/6	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Harwich	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Hastings	1/4	1/4	1/6	1/6	1/6	1/6	1/6	1/1½
Hatfield	1/3	1/3	1/4	1/4	1/4	1/6	1/6	1/1½
Hednesford	1/4½	1/4½	1/3	1/3	1/3	1/4	1/4	1/-
Hereford	1/5	1/5	1/4½	1/4½	1/4½	1/3	1/3	11½
Herne Bay	1/4	1/4	1/5	1/5	1/5	1/4½	1/4½	1/0½
Hertford	1/2½	1/2½	1/4	1/4	1/4	1/5	1/5	1/0½
Hitchin	1/4½	1/4½	1/2½	1/2½	1/2½	1/4½	1/4½	1/0
Hoddesdon	1/4	1/4	1/4½	1/4½	1/4½	1/2½	1/2½	11
Holt	1/4½	1/4	1/4	1/4	1/4	1/4½	1/4½	1/0½
Huddersfield	1/1½	1/4½	1/4½	1/4	1/4	1/4	1/4	1/0
Hull	1/6	1/1½	1/1½	1/4½	1/4½	1/4½	1/4½	1/0½
Hunstanton	1/6	1/6	1/6	1/1½	1/1½	1/1½	1/1½	10½
Huntingdon	1/2½	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Isle of Wight	1/3	1/2½	1/2½	1/6	1/6	1/6	1/6	1/1½
Ipswich	1/2½	1/3	1/3	1/2½	1/2½	1/2½	1/2½	11
Keighley	1/4½	1/2½	1/2½	1/3	1/3	1/3	1/3	11½
Kettering	1/6	1/4½	1/4½	1/2½	1/2½	1/2½	1/2½	11
Kidderminster	1/5	1/6	1/6	1/4½	1/4½	1/4½	1/4½	11
Kings Lynn	1/5	1/5	1/6	1/6	1/6	1/6	1/6	1/0½
Lancaster	1/3	1/3	1/5	1/5	1/5	1/5	1/5	1/1½
Leamington Spa	1/6	1/6	1/3	1/3	1/3	1/3	1/3	1/0½
Leeds	1/5	1/5	1/6	1/6	1/6	1/6	1/6	11½
Leicester	1/6	1/6	1/5	1/5	1/5	1/5	1/5	1/0½
Leighton Buzzard	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Lichfield	1/2½	1/2½	1/6	1/6	1/6	1/6	1/6	1/1½
Lincoln	1/5	1/5	1/2½	1/2½	1/2½	1/2½	1/2½	11
Littlehampton	1/6	1/6	1/5	1/5	1/5	1/5	1/5	1/0½
Liverpool	1/3	1/3	1/6	1/6	1/6	1/6	1/6	1/1½
Llandudno	1/8	1/8	1/3	1/3	1/3	1/3	1/3	11½
Llanelly	1/5	1/5	1/8	1/9	1/8	1/8	1/8	1/3½
London—	1/6	1/6	1/5	1/5	1/5	1/5	1/5	1/0½
12 m. radius	1/7½	1/7½	1/6	1/6	1/6	1/6	1/6	1/1½
12-15 m. radius	1/7	1/7	1/7½	*		1/7½	1/7½	1/6½
Loughborough	1/6	1/6	1/7	*		1/7	1/7	1/6
Lowestoft	1/3½	1/3½	1/6	1/6	1/6	1/6	1/6	1/1½
Luton	1/4½	1/4½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Macclesfield	1/5½	1/5½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Maidstone	1/4	1/4	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Malvern	1/4½	1/4½	1/4	1/4	1/4	1/4	1/4	1/-
Manchester	1/6	1/6	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Mansfield	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Margate	1/3½	1/3½	1/6	1/6	1/6	1/6	1/6	1/1½
Market Harborough	1/4½	1/4½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Matlock	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Melton Constable	1/1½	1/1½	1/1½	1/1½	1/1½	1/1½	1/1½	10½
Melton Mowbray	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Merthyr Tydfil	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Middlesbrough	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Newark	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/1½
Newbury	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11½
Newcastle-on-Tyne	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Newcastle-u-Lyme	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
New Forest	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11½
Newmarket	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Newport, Mon.	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Northampton	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Norwich	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Nottingham	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Nuneaton	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Oakham	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Oldham	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Oxford	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Paignton	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Peterborough	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Plymouth	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Pontypridd	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Portsmouth	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Preston	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Ramsgate	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Reading	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Redcar	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Redditch	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Reigate	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/-
Retford	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Ripon	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Rochdale	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Rochester	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/-
Rugby	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Saffron Walden	1/2	1/2	1/2	1/2	1/2	1/2	1/2	10½
St. Albans	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
St. Helens	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Sawbridgeworth	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Saxmundham	1/2	1/2	1/2	1/2	1/2	1/2	1/2	10½
Scarborough	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Sevenoaks	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/-
Sheffield	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Shrewsbury	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Sittingbourne	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	11
Southampton	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Southend-on-Sea	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Southport	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
South Shields	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Stevenage	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/-
Stockport	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Stockton-on-Tees	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Stoke-on-Trent	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Stourbridge	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Stourport	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Stowmarket	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	11
Stratford-on-Avon	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Stroud	1/4	1/4	1/4	1/4	1/4	1/4	1/3½	1/-
Sunderland	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Swaffham	1/1½	1/1½	1/1½	1/1½	1/1½	1/1½	1/1½	10½
Swansea	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Swindon	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/3½	1/0½
Tamworth	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Taunton	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/-
Thetford	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	11
Torquay	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Totnes	1/4	1/4	1/4	1/4	1/4	1/4	1/2	11½
Trowbridge	1/3	1/3	1/3	1/3	1/3	1/3	1/3	1/-
Tunbridge Wells	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/-
Uttoxeter	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/-
Wakefield	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Walsall	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Walsden	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Warminster	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	1/1½	11
Warrington	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Warwick	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Wells (Norfolk)	1/1½	1/1½	1/1½	1/1½	1/1½	1/1½	1/1½	10½
Welwyn Gar. City	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
West Bromwich	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Weston-super-Mare	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Weymouth	1/3	1/3	1/3	1/3	1/3	1/3	1/2	11½
Whitby	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Wigan	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Winchester	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Windsor	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Wisbech	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	11
Wolverhampton	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Woodbridge	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	11
Worcester	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Worksop	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Worthing	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11½
Wrexham	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Wycombe	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Wymondham	1/2	1/2	1/2	1/2	1/2	1/2	1/2	10½
York	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½

*The rate recognised by the National Association of Plasterers, Granolithic and Cement Workers, as and from the 1st February, 1932, is 1/9½ per hour.

For Building Trade wages in Scotland, see page 915.

CONTRACTS, COMPETITIONS, &c.

For some contracts still open, but not included in this List, see previous issues. Those with an asterisk are advertised in this number. Certain conditions beyond those given in the following information are imposed in some cases, such as that advertisers do not bind themselves to accept the lowest or any tender, that a fair wages clause shall be observed, that no allowance will be made for tenders; and that deposits are returned on receipt of a bona-fide tender unless stated to the contrary.

The date given is the latest date when the tender, or the names of those willing to submit tenders, may be sent in, the name and address at the end is the person from whom or place where quantities, forms of tender, etc., may be obtained.

Following is a list of abbreviations:—Borough Surveyor, B.S.; Borough Engineer, B.E.; District Surveyor, D.S.; Town Clerk, T.C.; County Engineer, C.E.; County Surveyor, C.S.; Surveyor, S.; Engineer, E.

BUILDING, PAINTING, ELECTRIC LIGHTING, HEATING, etc.

MAY 23.

Battersea Bridge.—Cleaning.—Also repainting, for the L.C.C. Chief Engineer, Old County Hall, Spring Gardens, S.W.1. Dep. £1.

Birmingham.—Houses.—261 non-parlour and 8 small non-parlour (two bedroom) type houses at Glebe Farm estate (part 1), Stechford, for T.C. H. H. Humphries, City E. and S. Dep. £2 2s.

Burnley.—Painting.—Also decorating, clubroom. Secretary, St. Mary's Reading Rooms, St. Mary's-gate, Burnley.

Cains.—Houses.—24 or 36 non-parlour type houses and incidental works at North End, for T.C. B.S. Dep. £2 2s.

Carlisle.—Wiring.—Installation of electric wiring to 230 houses, for T.C. P. Dalton, City E. and S., 18, Fisher-st.

Carlisle.—Alterations.—At 5 & 7, Victoria-pl., for R.D.C. S., 5, Victoria-pl.

Cheadle. — Conversion. — Of privies to water-carriage system at certain properties at Adswood, for U.D.C. Mr. Hayes, sanitary inspector. Dep. £1 1s.

Chesham.—Houses.—Pond Park estate, for the U.D.C. Clerk, Bank Chambers. Dep. £2 2s.

Cork.—Repairs.—Repairs to 3 cottages in Bantry district; improvements to Rosscarbery water-works; and maintenance of 376 cottages in Clonakilty district, for Cork County Board of Health. J. J. O'Crowley, architect, Clonakilty.

Farnborough.—Additions.—Alteration and additions at Town Hall, for U.D.C. J. E. Hargreaves, E. and S. Dep. £2 2s.

Finchley.—Decorations.—Also other works at Council's schools, for E.C. P. T. Harrison, E., 9, The Hawthorns, Regent's Park-rd., Finchley, N.3. Dep. £1 1s.

Glasgow.—Painting.—Painter work at St. Andrew's Halls, for T.C. D. Stenhouse, T.C.

Glasgow.—Alterations.—Ventilation of basement of premises 254-290, Sauchiehall-st., for T.C. D. Stenhouse, T.C.

Grimsby.—Houses.—100 non-parlour type houses on Nunsthorpe housing site, and construction of roads, for C.B. H. Gilbert Whyatt, B.E. and S. Dep. £2 2s.

Hendon.—Building.—Laying-out of cemetery at Pinner-rd., Pinner:—Roads, paths, surface and soil drainage, and services, erection of chapel, erection of superintendent's house, lavatories, waiting-room and staff buildings, for R.D.C. Swannell & Sly, architects, High-st., Rickmansworth. Dep. £10 10s.

Hendon.—Building.—Fire station at Waxwell-lane, Pinner, for R.D.C. Swannell & Sly, architects, High-st., Rickmansworth. Dep. £5 5s.

Houghton-le-Spring.—Houses.—75 on Villa estate (No. 2), for U.D.C. V. J. Hunter, S. Dep. £2 2s.

Mansfield.—Dwellings.—19 old people's dwellings, together with caretaker's house, fronting Sherwood Hall-rd., on Ravensdale housing estate, for T.C. W. Thompson, B.E. and S.

Newry.—Conveniences.—For U.D.C. C. Blaney, Town Surveyor. Dep. £1 1s.

Nottingham.—Painting.—Internal and external painting at Basford branch library, Vernon-rd., and Radford branch library, Lenton-boulevard, for T.C. T. Wallis Gordon, City E. and S. Dep. £2.

Oakham.—Cottages.—Six cottages in Whissendine, for R.D.C. E. H. Farrant, clerk. Dep. £1 1s.

Pelynt.—House.—New house at Pelynt. E. C. Higman, L.R.I.B.A., architect and surveyor, Barras-st., Liskeard.

Pewsey.—Houses.—One pair of non-parlour type in parish of Easton Royal and one pair of non-parlour type in parish of Collingbourne Kingston, for R.D.C. J. Black, Building Surveyor. Dep. £2 2s.

Ramsgate.—Houses.—14 in Woodford-av., for T.C. J. Fluck, B.E., 16, Albion-pl.

Rathtoole.—House.—House and out-office on lands of Rathtoole, Co. Wicklow, for Irish Land Commission. M. Deegan, secretary, Irish Land Commission, Upper Merion-st., Dublin. Dep. £1.

Stirling.—Wall.—Repair and renewal of portion of timber face-work of quay wall of harbour, for Forth Conservancy Board. J. and A. Leslie & Reid, C.E., engineers, 72a, George-st., Edinburgh. Dep. £1.

Solihull.—Convenience.—Public convenience adjoining recreation ground, Stratford-rd., Shirley, for U.D.C. R. Dunn, S. Dep. £1 1s.

MAY 24.

Ampthill.—Housing.—Two houses, Pine Hill, Clop Hill; 4 houses, East End, Cranfield; 2 houses, Sundon-rd., Harlington; 4 houses, near station, Lidlington; 2 houses in Clophill-rd., Maulden, for R.D.C. L. Foster, S. Dep. £1 1s.

Ballygibbin.—Repairs.—Also renewals, etc., to National School at Ballygibbin, Co. Cork. P. Fouhy, P.P., Parochial House, Michelstown, Co. Cork.

Bristol.—Convenience.—At Kingsway, Two Mile Hill, for T.C. L. S. McKenzie, City E. and S., 63, Queen-sq. Dep. £2 2s.

Dover.—Painting.—Also decorating works to Corporation properties, for T.C. B.E.

London. — Adaptation. — Adaptation of steam boilers for hot water heating, alteration of mains and additions to heating installation at the Money Order Office, Holloway, N., for H.M.O.W. Contracts Branch, H.M.O.W., King Charles-st., S.W.1. Dep. £1 1s.

Manchester.—Strengthening.—Of existing building at Holt Town Works, for T.C. City E. Dep. £2 2s.

Salford. — Reflooring. — At Tootal-rd. Council school, for T.C. Director of Education.

Weymouth and Melcombe Regis.—Building.—Additional tea room to cafe, Alexandra Gardens, for T.C. R. W. Vine, B.S. and E.

Wrightington.—School.—Sunday school, for Vicar and Parochial Church Council. J. G. Scholes, architect and surveyor, 23, Richmond-ter., Blackburn. Dep. £1.

MAY 25.

Aberkenfig.—Hall.—Public memorial hall and welfare institute. P. J. Thomas & Son, A.R.I.B.A., architects and surveyors, Bridgend. Dep. £2 2s.

Belfast.—Extension.—To Students' Union, for Senate of Queen's University of Belfast. Secretary, The Queen's University. Dep. £2 2s.

Brighton.—Painting.—Exterior of Public Assistance Offices, Princess-st., for C.B. B.S.

East Dereham.—Houses.—6 at Cemetery-rd., for U.D.C. C. H. Reeder, clerk. Dep. £1.

***Farnborough, Hants.** — Chapel, etc. — At intended new cemetery, for U.D.C. Clerk, Town Hall. Dep. £2 2s.

Glasgow.—Electrical.—Electrical work at Lambhill-st. school, Lambhill-st., S.1, for T.C. D. Stenhouse, T.C. Dep. £1 1s.

Gosport.—Repairs.—At the 6th (D.C.O.) Battalion, Hampshire Regiment Drill Hall, for Territorial Army Association of Hampshire and the Isle of Wight. A. E. Cogswell & Sons, architects, Prudential Buildings, Portsmouth.

Gravesend.—Shops.—For the Corporation. Town Clerk, 4, Woodville-terr. Dep £2 2s.

Liverpool.—Conversion.—Of Chapel House Farm, Speke, into public waiting-rooms, caretaker's quarters, etc., for T.C. Land Steward and Surveyor.

Liverpool.—Building.—Boathouse and pay-box at Calderstones estate, for T.C. Land Steward and Surveyor.

London.—Heating.—Low-pressure hot water heating, etc., at Post Office research station, Dollis Hill, N.W., for H.M.O.W. Contracts Branch, King Charles-st., S.W.1. Dep. £1 1s.

Market Bosworth.—Houses.—60, for R.D.C. H. G. Davey, S., Market Bosworth.

Padiham.—Houses.—64 (non-parlour type) for U.D.C. S. Dep. £2 2s.

Portland.—Building.—Brick sub-station at Chiswell, for U.D.C. R. Davison, E.

Portsmouth.—Additions.—Alterations and additions to offices of Public Assistance Committee, St. Michael's-rd., for T.C. City E. Dep. £1 1s.

Salford.—Heating.—Low-pressure, hot-water heating and electric lighting installations at Pendleton High School for Girls, Eccles Old-rd., Pendleton, for T.C. Director of Education, Education Office.

Smethwick.—Houses.—250 non-parlour three-bedroom type houses on Warley estate, for C.B. R. Fletcher, B.E. and S. Dep. £2 2s.

***Southwold.**—New School.—For East Suffolk C.C. County Architect, County Hall, Ipswich. Dep. £2 2s.

MAY 26.

Brixham.—Convenience.—Near St. Mary's-sq., Higher Brixham, for U.D.C. H. H. Brayshaw architect, 54, Fore-st. Dep. £2 2s.

Darlington.—Housing.—28 houses, for C.B. B.S. Dep. £1 1s.

Finedon.—Houses.—22 non-parlour type on Thrapston-rd. housing site, for U.D.C. A. E. Lloyd, S.

Glasgow.—Painting.—Various schools, for T.C. D. Stenhouse, T.C. Dep. 10s. 6d.

Glasgow.—Painting, etc.—Painter work and iron gates and railings at High Craighall—210 houses, and Wellfield-st.—72 houses, for T.C. D. Stenhouse, T.C.

Glasgow.—Works.—Electrical work at temporary school, Renwick-st., Kinning-pk., for T.C. D. Stenhouse, T.C. Dep. £1 1s.

Great Yarmouth.—Painting.—External painting and internal painting and colouring of Science School, 59, South Quay, for E.C. B.E.

Isle of Thanet.—Conveniences.—At Minnis Bay, Birchington, for R.D.C. S.

Liverpool.—Painting.—Internal, etc., at certain elementary schools, for E.C. Land Steward and Surveyor. Dep. £2 2s.

Manchester.—Buildings.—Wireless and meteorological buildings at Manchester Airport, Barton, for T.C. City Architect. Dep. 10s. 6d.

Romsey, Hants. — Telephone Exchange. — For H.M.O.W. Contracts Branch, King Charles-st., London, S.W.1. Dep. £1 1s.

MAY 27.

Braintree.—Repainting.—Externally, of 84 houses in Wheatley-av. and Hay-lane, for U.D.C. D. G. Armstrong, F.I.A.A., 57, High-st.

Hornchurch.—School.—Council school at Ardleigh-green, for Essex C.C. Jno. Stuart, F.R.I.B.A., County Architect, County Hall, Chelmsford. Dep. £2 2s.

Leeds.—Painting.—Interior painting, etc., at children's homes, for T.C. H. Fieldhouse, Public Assistance Officer.

Malvern.—Houses.—38, for U.D.C. W. O. Thorp, S. Dep. £1 1s.

Sleaford, Lincs.—Alterations.—Also extensions, to Post Office, for H.M.O.W. Contracts Branch, King Charles-st., London, S.W.1. Dep. £1 1s.

MAY 28.

Birmingham.—Construction.—Inclined roadway, buildings, garage and destructor plant at salvage works, Montague-st., for Corporation. General Manager, Corporation Salvage Department, 161, Corporation-st.

Bridlington.—Hall.—Superstructure and completion of new concert hall, for T.C. P. Maurice Newton, A.R.I.B.A., Borough Architect. Dep. £3 3s.

Glasgow.—Baths.—Baths and washhouses, Barrowfield-st., Mile-end, for T.C. D. Stenhouse, T.C. Dep. £2 2s.

Kew Gardens.—Painting.—For H.M.O.W. Contracts Branch, King Charles-st., London, S.W.1. Dep. £1 1s.

Swansea.—Painting.—Buildings at Corporation refuse destructor, Llangyfelach-st., for C.B. J. Richard Heath, B.E.

West Suffolk.—House.—House and farm buildings on Brandeston Hall estate, Lavenham and Great Waldingfield; erection of farm buildings at Holmes Farm, Freckenham; external painting and general repairs to 10 houses and cottages on Sudbury and district estate (Sudbury, Clunch, Great Cornard, Long Melford and Cockfield); external painting and general repairs to 16 houses and cottages on Bury and district estate (Great Barton, Rickinghall and Thelnetham), for C.C. C. F. Pattle, Chief Agricultural Officer, Shire Hall, Bury St. Edmunds.

MAY 30.

Bebington and Bromborough. — Housing. — 50 houses, Beaconsfield-rd. estate, for U.D.C. E. and S. Dep. £2 2s.

Dublin.—Houses.—321 three-roomed houses and 37 four-roomed houses on Cabra (Beggsboro' extension) housing area, for T.C. Housing Architect, Office, Exchange-bldgs., Lord Edward-st. Dep. £5 5s.

London.—Painting.—Painting certain lighthouses around the coasts of England and Wales, for Corporation of Trinity House. M. K. Smith, secretary, Trinity House, Tower Hill, London, E.C.3.

Long Crendon.—Painting.—Exterior painting and repair of 7 Council cottages in Temple-st., Brill, for R.D.C. C. Simmons, clerk, 96, High-st., Thame.

Rothwell, Yorks.—Alterations.—Also additions to existing building in Oulton-lane, for conversion into central clinic, for U.D.C. C. A. E. Snell, S. Dep. £1 1s.

MAY 31.

Rochester.—Painting bridge.—P. T. Baker, Bridge Clerk, 18, Star Hill. Dep. £5.

JUNE 1.

Boothferry.—Painting.—Of bridge, which carries Goole to Howden County-rd. over River Ouse, for East and West Riding C.C.'s. West Riding Surveyor, County Hall, Wakefield. Dep. £1.

Mexborough. — Employment Exchange. — For H.M.O.W. Contracts Branch, King Charles-st., London, S.W.1. Dep. £1 1s.

JUNE 2.

Andover.—Poor Law Vagrancy Ward, for the Hampshire C.C. County Architect, The Castle, Winchester. Dep. £1 1s.

Bury.—School.—Fishpool Council infants' school in Parkhills-rd., for C.B. J. Chadwick, B.E. Dep. £2.

Caersws.—Alterations.—Caersws Poor Law Institution; Forden Poor Law Institution; Llanfyllin Poor Law Institution; and Machynlleth Casual Wards, for Montgomery C.C. B. I. Evans, public assistance officer, Welshpool, Mont.

Fareham.—School.—For the Hampshire C.C. County Architect, The Castle, Winchester. Dep. £1 1s.

***Fulham, S.W.6.**—Internal and External Cleansing, etc.—Of Western Hospital, for L.C.C. Chief Engineer, Old County Hall, Spring-gardens, S.W.1. Dep. £1.

Glasgow.—Houses.—164, South Chester-st. housing scheme, for T.C. D. Stenhouse, T.C.

***Highgate Hill, N.19.**—Internal Cleansing, etc.—St. Mary (Islington) Hospital, for L.C.C. Chief Engineer, Old County Hall, Spring-gardens, S.W.1. Dep. £1.

***Kennington, S.E.11.**—Internal and External Cleansing, etc.—Lambeth Hospital, for L.C.C. Chief Engineer, Old County Hall, Spring-gardens, S.W.1. Dep. £1.

***Kensington, W.8.**—Internal Cleansing, etc.—St. Mary Abbot's Hospital, for L.C.C. Chief Engineer, Old County Hall, Spring-gardens, S.W.1. Dep. £1.

Kingston-upon-Hull.—Taking down existing superstructure, and construction, erection, glazing and painting of a new wooden superstructure on existing brick foundation, at Greenhouse—East Park. H. Hamer, City E.

***London, W.9.**—Internal Cleansing, etc.—Paddington Hospital, for L.C.C. Chief Engineer, Old County Hall, Spring-gardens, S.W.1. Dep. £1.

Nottingham.—Extension.—Mail Yard, at Head P.O., for H.M.O.W. Contracts Branch, King Charles-st., London, S.W.1. Dep. £1 1s.

JUNE 3.

Barnstaple.—Housing.—6 houses at Milltown, Marwood, and 4 houses at Woolacombe, Morte-Hoe, for R.D.C. Harold Hargreaves, Building Surveyor, Red House, Castle-st. Dep. £1 1s.

JUNE 4.

***Reigate.**—Houses.—At South Park.—For T.C. T.C., Municipal Offices. Dep. £2 2s.

JUNE 6.

Acon, W.—Filter House.—For the T.C. Town Clerk, Municipal Offices, W.3. Dep. £2.

***Acton, W.3.**—Re-slating roof, Public Library. Town Clerk, Municipal Offices.

Bletchingley, nr. Redhill.—Alterations, etc.—At Godstone Institution, for Surrey C.C. Clerk, County Hall, Kingston-upon-Thames. Dep. £3 3s.

Bletchingley, nr. Redhill.—Heating and Hot Water Installations.—At Godstone Institution, for Surrey C.C. Clerk, County Hall, Kingston-upon-Thames. Dep. £3 3s.

Ware.—Houses.—At Wareside and Thundridge, for the R.D.C. Clerk, 8, West Street. Dep. £1 1s

JUNE 7.

London.—Market.—Filling, levelling, surface concreting and drainage, also construction of brick retaining walls, in formation of open market, Plumstead-rd., S.E.18, for Woolwich B.C. B.E. Dep. £1.

Northfleet.—Houses.—Wombwell Park estate, for the U.D.C. Clerk, Council Offices. Dep. £5.

JUNE 8.

***Hemel Hempstead.**—Houses, for the Corporation. Alfred E. Usher, Town Clerk, Town Hall. Dep. £5.

***St. Albans.**—Extension and Alteration.—Of casual wards. Clerk, Public Assistance Office, Hertford. Dep. £3 3s.

JUNE 9.

***London, N.W.**—Houses and Flats.—For Willesden U.D.C. Clerk, Town Hall, Dyne Road, Kilburn, N.W.6. Dep. £1 1s.

JUNE 14.

***Chiswick, W.4.**—Reconstruction of the Camellia house, Chiswick House. Clerk, Town Hall. Dep. £2 2s.

NO DATE.

Dodbrooke.—Alterations.—To rectory of Dodbrooke, Kingsbridge. W. H. May, architect, 23, Lockyer-st., Plymouth.

Fairfield.—Buildings.—New farm buildings, for Mr. Nadin. G. E. Garlick & Son, architects, 2, Lower Hardwick-st., Buxton.

Peterborough.—Painting.—152 Council houses, for R.D.C. C. Green, S., 43a, Priestgate.

Redrock.—Reseating.—Also renovation of church, for Committee of Redrock Presbyterian Church, Co. Armagh. Hobart & Heron, architects, Scottish Provident-bldgs., Belfast.

Salford.—Wiring.—Electrical installation in 96 houses, Wheater's Field, Lower Broughton, and 84 houses, Gerald-rd., Lower Kersal, for Corporation. City Electrical Engineer, Electricity Offices, Frederick-rd.

Stoke-on-Trent. — Building. — Electricity substation in London-rd., Oakhill, for Corporation. Wood & Goldstraw, architects, Town Hall-chams., Tunstall. Dep. £2.

Whitehaven.—Sub-station.—At Hensingham-rd., for T.C. Borough Electrical Engineer. Dep. £1 1s.

York.—Houses.—186 houses and 16 flats on Garrow Hill estate, for T.C. F. W. Spurr, City E. Dep. £2 2s.

MATERIALS, etc.

MAY 23.

Glasgow.—Line, etc.—For Electricity Dept. General Manager, Electricity Department, 4, West Regent-st., C.2.

Hull.—Plumbers' Materials.—For City Mental Hospital. Jno. S. Anderson, Medical Superintendent.

Seaton.—Pipes.—Straight socket and spigot pipes, for U.D.C. Rofe & Raffety, 208, Abbey House, 8, Victoria-st., Westminster, S.W.1.

MAY 24.

Cork.—Macadam.—Unaphalt macadam, for T.C. City E.

Glasgow.—Timber, etc.—For T.C. D. Stenhouse, T.C.

Epsom.—Highways Materials.—For U.D.C. E. G. Timbrell, S., 33, Church-st.

MAY 25.

Birmingham.—Builders' Materials.—For T.C. Wallace Smith, General Manager, Estates Committee, Market-buildings, Moat-lane.

Hemsworth.—Highway Materials.—For U.D.C. A. Wright, clerk.

Hull.—Blocks.—500,000 paving blocks, for T.C. H. Hamer, City Engineer.

Whitby.—Highway Materials.—For U.D.C. E. and S.

MAY 30.

Hendon.—Granite Kerb.—For U.D.C. A. O. Knight, E. and S.

Surbiton. — Builders' Materials, etc. — For U.D.C. S.

ENGINEERING, IRON AND STEEL.

MAY 23.

Bedworth.—Reconstruction.—Also widening of bridge which carries King-st. over L.M. & S.R., Coventry to Nuneaton branch, for Warwickshire C.C. D. H. Brown, C.S., 8, Northgate-st., Warwick. Dep. £2.

Pontefract.—Retorts.—Renewal of retorts, for Gas Dept. of T.C. B. Hudson, Engineer and Manager, Gas Works.

MAY 28.

Cheshire.—Improvements.—Earthworks, fencing and drainage in connection with road diversion, together with the construction of a reinforced concrete culvert, at Acton Bridge, Warrington-Tarporley-rd., for C.C. G. E. Ashforth, C.S., The Castle, Chester. Dep. £5 5s.

Paignton.—Drainage.—Construction of cast-iron, concrete and stoneware sewers, cast-iron pumping mains (ranging from 12 in. to 5 ft. 6 in. in diameter), storm outfall, a pumping station, and storage tanks, for U.D.C. F. W. Vanstone & Sons, engineers, 12, Victoria-st. Dep. £5 5s.

MAY 31.

Galloway.—Dam.—Tongland Dam in connection with the Galloway Power Works, for the Galloway Water Power Co. Sir Alexander Gibb & Partners, Queen Anne's Lodge, Westminster, S.W.1. Dep. £10 10s.

JUNE 2.

Beeston.—Bridge.—Reinforced concrete bridge on Beeston by-pass-rd., for Notts C.C. J. C. Haller, C.S., Nottingham. Dep. £2

Wickford.—Reconstruction.—Of Wickford bridge on Wickford-Shenfield-rd. in parish of Wickford, for Essex C.C. Robt. H. Buckley, C.S. Old Court, Chelmsford. Dep. £2 2s.

JUNE 4.

Chatteris.—Extension.—Small reinforced concrete reservoir and booster station, 2 standpipes, and appurtenant work for purpose of augmenting existing water supply to Chatteris, for U.D.C. Sands & Walker, consulting engineers, Milton-chambs., Nottingham. Dep £3 3s.

Wing.—Drainage.—Small sewage disposal works in parish of Wing, for R.D.C. Sands & Walker, conculting engineers, Milton-chambs., Milton-st., Nottingham. Dep. £2 2s.

JUNE 6.

Hayes and Harlington. — Station. — Pumping station, comprising reinforced concrete underground chambers and brick superstructure, for U.D.C. E. A. Sandford Fawcett, consulting engineer, 53, Victoria-st., Westminster, S.W.1. Dep. £5 5s.

Johannesburg.—Bridgework.—Supply and delivery only of steelwork for the new Umlaas River bridge, South Coast Line, Natal, for South African Railways and Harbours. Dept. of Overseas Trade, S.W.1 (Ref. G.11420).

JUNE 8.

Birmingham.—Sewerage.—3,240 yds. of brick and concrete, concrete tube and stoneware pipe sewers and culverts, together with brookcourse improvements, etc., in Gibson-rd., Rookery-rd., Victoria-pk. and private lands between Hamstead-rd. and Rookery-rd., Handsworth, for T.C. H. H. Humphries, City E. and S.

JUNE 11.

Cairo.—Water Supply.—Small water works for the village of Deir Moas, for Egyptian Ministry of Interior. Dept. of Overseas Trade. (Ref. G.X. 11,390.)

ROAD, SEWERAGE AND WATER WORKS.

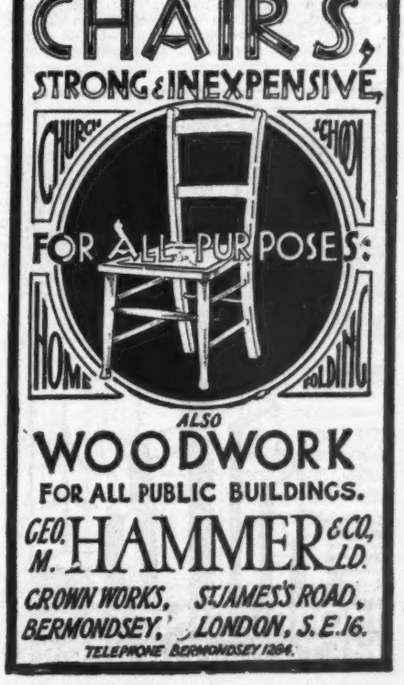
MAY 23.

Bettwsycoed.—Road.—Reconstruction and improvement of new school rd., Gethin-ter., for U.D.C. Salisbury Jones, Clerk.

Ilford.—Making-up.—Of The Drive, Wansteadlane to Eastern-av. and Lombard-av., for T.C. B.E. and S. Dep. £2 2s.

Manchester.—Sewering.—Roads Nos. 1 and 2 on area D. Wythenshawe estate, Northenden, for Corporation. T.C. Dep. £1 1s.

Ruislip-Northwood.—Making-up.—Of (a) Northdrive, Ruislip; (b) Midcroft, Ruislip; (c) Croftgardens, Ruislip; (d) South-drive, Ruislip; (e) Parkway, Ruislip, for U.D.C. H. R. Metcalfe, E. and S. Dep. £2.



MAY 24.

Edinburgh.—Roads.—Roads and sewers at Granton Mains, for T.C. B.E.

Epsom.—Making-up.—Of Beaconsfield-rd. (part) and Grosvenor-rd. (part), for U.D.C. E. G. Timbrell, S., 33, Church-st. Dep. £2 2s.

Epsom.—Roads.—Laying on previously prepared foundation, approximately 360 super. yds. 1 in. mastic asphalt surfacing to footway at Alexandra-rd. and approximately 1,000 super. yds. 3½ in. two-coat asphalt to carriageway at Lower Court-rd., for U.D.C. E. G. Timbrell, S.

MAY 25.

Burley-in-Wharfedale.—Sewer.—Laying of approximately 620 yds. of 9 in. earthenware pipe sewer, for U.D.C. S.

Herne Bay.—Making-up.—Of Fernlea-av., for U.D.C. B. J. Wormleighton, E. and S.

Ruthin.—Extension.—434 yds. of 9 in. salt glazed ware pipe sewer in Llanrhydd-st., for T.C. B.S. Dep. £1 1s.

MAY 26.

Luton.—Making-up.—Of Seymour-av., Seymour-rd., Carlton-crescent (part), for T.C. J. W. Tomlinson, B.E. and S., 12, Upper George-st. Dep. £1 1s.

Poole.—Making up.—Of (1) Royal-rd., (2) Cornelia-crescent, for T.C. E. J. Goodacre, B.E.

MAY 28.

Caithness.—Road.—Earthworks, drainage, pitching, masonry and concrete work, on Thurso-Scrabster-rd., for C.C. County Road Surveyor, Wick. Dep. £3 3s.

Leicester. — Roadways. — Surfacing works on Braunstone and Uppingham-rd., Tailby estate, for T.C. J. S. Fyfe, A.R.I.B.A., Housing Architect, 18, Highcross-st. Dep. £2 2s.

Whitby.—Sewer.—12 in. pipe sewer and other incidental works in Woodland-rd., for Ellesmere Port and Whitby U.D.C. T. W. Francis, clerk.

MAY 30.

Drogheda.—Improvement.—In borough, on Dublin-Belfast trunk road, for T.C. J. Carr, T.C.

Hendon. — Making-up. — Of Clarendon-gardens, Downage, Sunny-gardens-rd., Sunny-hill, St. Mary's-cres., Southfields, Rowsley-av., Meadow-drive, Chatsworth-av., and Hendale-av., for U.D.C. A. O. Knight, E. and S. Dep. £5.

London.—Surfacing.—With mastic asphalt, part of carriageway of Winchester-st., N.1, for Islington B.C. B.E.

Norwich.—Surfacing.—In Upton-rd., for T.C. City E. Dep. £2 2s.

MAY 31.

Hornchurch.—Reconstruction.—Of Slewins-lane, section 1, for U.D.C. F. Alderson, S.

JUNE 1.

Exeter.—Widening.—Also improvement of Honiton main road, for T.C. R. H. Dymond, City E. and S. Dep. £5.

Milford Haven.—Surfacing.—Also kerbing of new road on Council's housing site, for U.D.C. S.

Wembley.—Making-up.—Of Station-grove extension; Crendon-gardens, part 2; Eastcote-av.; and Park-lane, for U.D.C. C. R. W. Chapman, E. and S. Dep. £1 1s. each.

JUNE 2.

Ealing. — Making-up. — Of Audley-rd., Ealing; Kingsbridge-av., Ealing; Carbery-av. (1st portion), Ealing; Tudor-way, Ealing; Eastcote-av. (all within Borough), Greenford; Sudbury Heights-av. (all within Borough), Greenford; for T.C. W. R. Hicks, B.E.

JUNE 3.

Dagenham.—Making-up.—Of Edward-rd. (sections 1 and 2), Alexandra-rd., Eagle-av., Beresford-gardens, Cavendish-gardens, for U.D.C. E. and S. Dep. £6 6s.

JUNE 4.

Reigate.—Paving.—Reinforced concrete carriageways and tarpaving and slabpaving footways on Corporation housing scheme at South Park, for T.C. G. G. Sanderson, B.E. Dep. £2 2s.

JUNE 5.

Netherne.—Drainage.—At Mental Hospital, near Coulsdon, for Surrey C.C. F. J. Hodgson, L.R.I.B.A., 201, High-st., Guildford. Dep. £3 3s.

JUNE 7.

Chingford. — Making-up. — Of Horsley-rd., for U.D.C. S. J. Hellier, E. and S. Dep. £1 1s.

Wimbledon.—Making-up.—Of portion of Queensmere-rd., for T.C. B.E. and S. Dep. £2 2s.

JUNE 9.

Teddington.—Repaving.—Of Wellington-rd., for U.D.C. E. Bostock, S. Dep. £2.

Teddington.—Reconstruction.—Of Stanley-rd., for U.D.C. E. Bostock, S. Dep. £2.

Public Appointments

MAY 28.

***Ramsgate.**—Clerk of Works.—Clerk, Education Comittee, Albion House.

JUNE 6.

***Derby.**—Estates and Housing Inspector.—J. Pritchard Lovell, Borough Estates Manager, Becket-st.

JUNE 11.

***Prestwich.**—Clerk of Works.—Chairman, County Mental Hospital.

L.M.B. Sports Association.

We give below results in the Cricket League of this Association :—

May 7.—Limmer 48; Minter 194.
(Mulford 102.)

May 14.—Limmer 36; Holloways 152.
(Hunt 38 not.)

Downs 41; Parkonian 18.

PROPOSED NEW BUILDINGS & OTHER WORKS*

In these lists care is taken to ensure the accuracy of the information given, but it may occasionally happen that, owing to building owners taking the responsibility of commencing work before plans are finally approved by the local authorities, "proposed" works at the time of publication have been actually commenced. Abbreviations: T.C. for Town Council; U.D.C. for Urban District Council R.D.C. for Rural District Council; E.C. for Education Committee; B C. for Borough Council; P.C. for Parish Council; M.H. for Ministry of Health; M.T. for Ministry of Transport; C.B. for County Borough; B. of E. for Board of Education; M.W.B. for Metropolitan Water Board; Borough Surveyor, B.S.; Borough Engineer, B.E.; District Surveyor, D.S.; Clerk, C.; Town Clerk, T.C.; County Engineer, C.E.; County Surveyor, C.S.; Surveyor, S.; Engineer, E.

Aberdare.—Council approved sites for fifty houses at Glanant Fields, Hirwaun, and at Cwm Sian site, Trecynon.

Aberdeen.—Hall to be erected for the Albyn Pupils' Club at Albyn School, Queen's-rd. Also house and shop at Holburn-rd. Tawse & Allan, architects, Bon Accord-st.

Ackworth.—Tenders being invited for additions at Friends girls' school. Plans by F. Rowntree & Sons, York.

Armthorpe.—Miners' Welfare Committee propose pit-head baths.

Ashington (Northumberland).—U.D.C. to forward amended plans to M.H. for child welfare centre and ante-natal clinic. G. Beatty prepared plans.

Ashton-under-Lyne.—B.S. to prepare plans for houses on new housing estate at Hurst.

Aylesbury.—T.C. approved:—20 houses, Tring-rd., Janes & Co.; 20 houses, York-place, T.C.

Ayr.—Extension and reconstruction at Cathcart-st. for W. C. Galbraith, Ltd., 80, High-st. H. V. Eaglesham, architect, Cathcart-st.

Bacup.—T.C. propose 50 three-bedroomed non-parlour type houses.

Barnes.—U.D.C. to appoint committee into improvements to Council house.—Plans passed: Alterations and additions, 62, Gerard-rd., Universal Housing Co., for F. D. Cliff.

Bedlington.—U.D.C. received sanction from M.H. to invite tenders for 30 houses for aged people at Stakeford, and also 30 non-parlour three-roomed houses. J. W. Pooley, S.

Beighton.—Mappin's Masbro' Old Brewery, Ltd., Rotherham, propose licensed premises in Station-rd.

Belford.—R.D.C. passed lay-out plans for houses at Seahouses and at Dell Point, Beadnell, for H. J. Percy and Hicks & Charlewood, architects, Mosley-st., Newcastle, respectively.

Bideford.—T.C. received letter from M.H. agreeing to Council proceeding to obtain tenders for 42 non-parlour type houses on Sentry Corner site.

Birmingham.—Holland W. Hobbiss, A.R.I.B.A., 33, Newhall-st., architect, for parish hall for vicar, Rev. T. L. Chavasse, and Parochial Council for parish church at Water Orton.

Blackpool.—Gorst & Crabtree, L.R.I.B.A., 7, Birley-st., architects for 6 houses and shops, café and garage on corner of Squires Gate-lane and Clifton-drive, South Shore, for Mrs. Brammer.—B.S. preparing plans for rebuilding about 20 shop premises in Stanley-ter.

Blackwell (Derbys).—R.D.C. propose 26 houses at Langwith and 24 houses at Pinxton.

Blantyre.—Public convenience at Stonefield-rd. Thomas Stephens, architect, County-bldgs., Hamilton.

Blyth.—General Purposes Committee approved plans for 24 houses in flats in Gladstone-st. by Berg & Turnbull; 11 houses in Briarwood-rd., for A. Robinson, and alterations to "Turk's Head" inn, Newsham.

Boston.—Governors of Boston High School for Girls propose permanent building as additions to existing premises.—Wesleyan Methodist Association propose chapel in East Fen district.—Waterworks Committee propose improvements on reservoir. T. H. Tyson, engineer.

Bournemouth.—Application to be made by T.C. to M.H. for sanct on to borrow £8,960 to meet cost of extension of Bournemouth School for Girls.

Bromley.—T.C. approved:—F. Dear, 6 houses, Jackson-rd.; H. Miller, 8 houses, Chislehurst-rd.; C. H. Morrell, 50 houses in new road off Southborough, and 4 houses, Southborough; T. Crossley & Son, alterations, 73-74, High-st.; H. F. Thoburn, Ltd., 65 houses, Widmore-rd, Cedar-rd. and Beechfield-rd.; H. F. Thoburn, Ltd., 38 houses, Beechfield-rd. and Widmore-rd.; H. F. Thoburn, Ltd. 32 houses, Widmore-rd. and Beechfield-rd.

Burnley.—R. Jaques, A.R.I.B.A., architect, 37, Railway-st., Nelson, prepared plans for extensions at Whiley Hospital, Reedyford, Nelson.

Bury.—T.C. decided to apply to M.H. for sanction to borrow £24,800, cost of alterations to Town Hall.

Cairnsmuir.—Stirlingshire C.C are to build a new special school from plans by their own architects.

Carlisle.—T.C. approved:—16 houses, Thorneyflatt estate, J. Laing & Son, Ltd., per —. Irving-Graham.

Carmarthen.—T.C. to secure a site for additional housing scheme.

Chailey (Lewes).—F. Bedman, of Lewes, has prepared drawings and specifications for residences to be erected near the Chailey Cross-roads.

Cheriton.—U.D.C. recommend plans for 16 houses in Langdon-rd.

Cheshire.—Cheshire Local E.C. proposing elementary school for 320 senior scholars at Lymm. Plans by County Architect, F. Anstead Browne, F.R.I.B.A., County Offices.—F. Anstead Browne, F.R.I.B.A., been instructed to prepare plans for proposed Grange Council school at Ellesmere Port.

Coatbridge.—Annexe to All Saints' R.C. school, costing over £2,000. J. Stewart, architect, Albert-st., Motherwell.

Colchester.—Plan of proposed amended lay-out providing for 106 houses on portion of Ipswich-Harwich roads site been prepared.—Among proposals recommended by Committee of Visitors to Essex and Colchester Mental Hospitals were following in regard to Severalls Mental Hospital: additions to original nurses' home, £7,500.

Coventry.—New church being erected on site in Hearsall-lane, for parishioners of St. Mary Magdalen, Earlsdon. H. T. Jackson, architect.

Darlington.—T.C. to proceed with 28 houses. Tenders to be invited. Plans by E. Minors, B.E.—M.T. approved scheme for reconstruction and lengthening of bridges over Bank Top Cut. E. Minors, B.S.

Darlington.—Plans being prepared for church in connection with St. Matthew's by C. W. Milburn, Feethams, Darlington. Rev. A. L. Nixon, vicar of church. Contracts not yet been placed.

Denton Burn.—Northumberland C.C. to erect policeman's house and office to plans by A. Cheyne, C.S., Moothall, Newcastle-on-Tyne.

Dewsbury.—T.C. approved:—G. A. Smith, 6 houses, Broad-st., off Huddersfield-rd.; S. H. Greenwood, 7 houses, North Park-st. and Anroyd-st.; Yorkshire (W.D.) Electric Tramways, Ltd., omnibus station, Asman-sq.; W. Wormald, 6 houses Bennett-lane.

Driffield.—U.D.C. to erect 12 houses.

Dover.—T.C. approved: L. G. Ekins on behalf of Dover and District Co-operative Society, garages at rear of premises in Maison Dieu-rd.

Eccles.—B.S. to prepare plans for branch library, shelter and public conveniences at junction of Parrin-lane and Worsley-rd.

Filey.—Scheme of additions to be carried out at "Station Hotel," for J. Smith's Tadcaster Brewery Co., Ltd. B. Wilson, architect, Tadcaster.

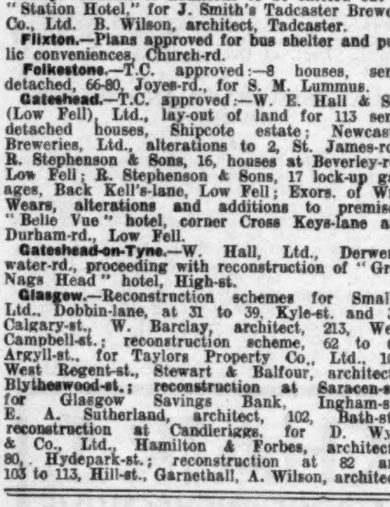
Flixton.—Plans approved for bus shelter and public conveniences, Church-rd.

Folkestone.—T.C. approved:—8 houses, semi-detached, 66-80, Joyes-rd., for S. M. Lummus.

Gateshead.—T.C. approved:—W. E. Hall & Son (Low Fell), Ltd., lay-out of land for 113 semi-detached houses, Shipcote estate; Newcastle Breweries, Ltd., alterations to 2, St. James-rd.; R. Stephenson & Sons, 16, houses at Beverley-rd., Low Fell; R. Stephenson & Sons, 17 lock-up garages, Back Kell's-lane, Low Fell; Exors. of Wm. Wears, alterations and additions to premises, "Belle Vue" hotel, corner Cross Keys-lane and Durham-rd., Low Fell.

Gateshead-on-Tyne.—W. Hall, Ltd., Derwentwater-rd., proceeding with reconstruction of "Grey Nags Head" hotel, High-st.

Glasgow.—Reconstruction schemes for Smalls, Ltd., Dobbin-lane, at 31 to 39, Kyle-st. and 32, Calgary-st., W. Barclay, architect, 213, West Campbell-st.; reconstruction scheme, 62 to 68, Argyll-st., for Taylors Property Co., Ltd., 104, West Regent-st., Stewart & Balfour, architects. Blytheswood-st.; reconstruction at Saracen-st., for Glasgow Savings Bank, Ingham-st., E. A. Sutherland, architect, 102, Bath-st.; reconstruction at Candleriggs, for D. Wyle & Co., Ltd., Hamilton & Forbes, architects, 80, Hydepark-st.; reconstruction at 82 and 103 to 113, Hill-st., Garnethall, A. Wilson, architect, 156, George-st. reconstruction scheme for Wylie & Lochhead, Ltd., Buchanan-st., at 46 to 50, Mitchell, Wylie, Wright & Wylie, architects, 204, West Regent-st.; shops and garages at Garteraig-rd., J. Parker, Ltd., architects, 80, Smithycroft-rd., Reddrie; shops and offices, Clarence-drive, J. A. Russell, architect, 10, Hill-st., Garnethill; reconstruction at 7-9, Clarendon-st., for the City Bakeries, 13 to 37, Clarendon-st., J. M. Bigger, architect, 180, West George-st.



Glasgow.—Scheme of reconstruction and additions, etc., estimated at £10,000, to be carried out on Lyceum Theatre, Govan. C. McNair, architect, 112, Bath-st.

Grantham.—T.C. approved: Improvements, "Blue Bull Hotel," Westgate, for Earl Dysart; rebuilding 71, High-st., corner of High-st. and Market-pl., for Montague Burton, Ltd.

Gravesend.—J. G. Bennett, architect, 5, Woodville-ter., prepared plans for shop premises in Denton.

Hafod.—Congregation of Hafod Church to appeal for funds for restoration of church. Rebuilding is to start at once and W. D. Caroe, 3, Great College-st., Westminster, is to be asked to advise in the matter.

Headingley.—J. Proctor, 40, Clarendon-rd., Leeds, been appointed to prepare plans for rebuilding main grandstand at Headingley sports grounds for Leeds Cricket, Football and Athletic Co., Ltd.

Hebburn-on-Tyne.—A. Reyrolle & Co., Ltd., electrical engineers, to erect experimental workshop at works. Contract not been let. Plans by Cackett, Burns-Dick & MacKellar, 21, Ellison-place, Newcastle.

Hexham.—R.D.C. considering scheme for 'bus stands in Market-place, at Allendale.

Holme Cultram.—U.D.C. approved: Silloth Presbyterian Church, church hall adjoining church in Solway-st.

Horncastle.—R.D.C. propose 30 to 40 additional houses in rural district.

Hungerford.—Council approved scheme to reconstruct 10 cottages.

Isle of Wight.—Extensions and improvements to be carried out to "White Lion Hotel," Arreton, Newport, for W. B. Mew, Langton & Co., Ltd., brewers, High-st., Cowes.

Kirkcudbright.—Corporation have in hand plans for housing scheme of 2, 3 and 4-apartment houses at Tongland-rd., etc. R. Miller, architect, National Bank-bldgs.

Leeds.—Wilkinson & Warburton, Ltd., to build garage in Duncombe-st. Plans by W. Dawson. Tenders being invited.—E.C. propose adaptation at Cross Stamford-st. schools for use by building dept. of Technical College. Alterations also to be carried out to old printing dept. premises in Queen's-sq. and Woodhouse-lane. Plans by F. Broadbent, architect to E.C.

Leeds.—S. Smith's Old Brewery, Tadcaster, Ltd., The Old Brewery, Tadcaster, propose alterations to "Emmott Arms" public-house, Rawdon, near Leeds. Plans by H. Lane Fox, architect, 25, Bond-st.

Leeds.—T.C. resolved that scheme for 265 houses and flats be approved.

Leigh.—T.C. resolved that Town Clerk make application to M.H. for sanction to borrowing of £4,108 for acquisition of land for house sites off Warrington-rd.

Lincoln.—G. Watkins, F.R.I.B.A., architect, Silver-st., prepared plans for senior elementary school in Macaulay-drive, St. Giles.

Liverpool.—Plans passed by Corporation:—alterations to 43, Whitechapel, H. H. Davies & Son, for Bent's Brewery Co., Ltd.; 6 houses, Brodie-av. and Cooper-av., Richard Owens & Son, for J. Hughes; 6 houses, Darley-drive, G. Longmire, for W. S. Bibby; school, Utting-av. East, Anthony Ellis, for R. G. Sargent; 6 houses, Druidsville-rd., T. Wainwright & Son, for D. Roberts; totalisator indicator building, Townsend-lane, Breck Park, R. Owens & Son, for Liverpool Greyhound Club, Ltd.; school, Chatham-place, corner of Overbury-st., Foden, Hemm & Williams, for Rev. W. C. Sheppard; extension to works premises, Seagrave-st., W. A. Yeoman & Co.; 10 houses, Ambleside-rd., E. M. Bellis, for Amalgamated Properties, Ltd.; alteration and addition, 74-76, Farnworth-st., N. E. Davies & Son, for Bent's Brewery Co., Ltd.; alteration, 9-10, Ranelagh-place, Percy J. Bartlett, for Boots (Lancs), Ltd.; 6 houses, Eaton-rd., E. Russel-Taylor & Son; new cinema, Prescot-rd., corner of Somerford-rd., A. E. Shennan, for Robert Wilkins; addition to school, Meadow-lane, E. Roberts, for J. P. N. Potter; 5 houses and shops, Rose-lane, near Avonmore-av., R. Owens & Son, for W. J. Williams; alteration and addition to premises, Upper Mason-st., Thomas James & Co., for P. M. Willey & Son; buildings at new Greyhound Racing Track, grand stand, club, refreshment block, lavatory blocks and control tower, A. E. Shennan, for White City Greyhound Co. (Liverpool), Ltd.; 6 houses, Blackmoor-drive, E. Russell-Taylor & Son; reconstruction of factory, Garston, J. D'Arcy & Son, Ltd., for Mapleton's Nut Food Co., Ltd.; 10 houses, Oakhill-park, A. E. Shennan; extension to mill, Commercial-rd., Grey & Evans, for Preston & District Farmers' Trading Co., Ltd.; house and club premises, Hartley-av., Long-lane, Aintree, F. W. Nicholson, for W. F. Hartley, Ltd.; new works premises, Naylor-st., Tysons (Contractors), Ltd., for Liverpool Central Oil Co., Ltd.; large works and office premises, Ormrod, Pomeroy & Foy, for Tillotsons (Liverpool), Ltd.

London (Bermondsey).—B.C. recommend application to L.C.C. for £1,600 for purchase of land at Lower-rd. depot.—Council received L.C.C. sanction to £26,250 for 42 flats and 6 shops in Odessa-st.—Drainage plans passed:—W. E. Baker, General

*See also List of Contracts, Competitions, etc.

Manager, Town Hall, Spa-rd., for B.C., No. 9 block of 44 tenements, Rotherhithe-st., and 28 tenements, Grange-walk.

London (Fulham).—B.C. approved: W. Doddington, 262, Earl's Court-rd., one-story shop addition, 1-3, Stephendale-rd.; Cripps & Co., 116, Putney Bridge-rd., addition at Hickman's Dairy, Burlington-rd.; G. A. Sexton & Son, 42, High-rd., Kilburn, N.W.6, addition, 417-429, North End-rd., abutting upon Eustace-rd.—Drainage plans passed: W. J. Marston & Son, additional building conversion to offices and flats, 1-3, Stephendale-rd.; J. Carmichael, Ltd., extension of substation, Putney Bridge Station Approach; G. Garner, offices, 174, Estcourt-rd.; G. Roberts, building, Dawes-rd.

London (Lewisham).—B.C. approved:—J. W. Heath & Son, 26 houses, Henryson-rd.; S. F. Prior, additions and alterations at the Gleniffer Laundy, Bromley-rd.; William Clark, 99 houses, Selworthy-rd.

London (Stepney).—L.C.C. recommend borrowing by B.C. of £14,630 for Limehouse Fields housing scheme.

Longbenton.—Northumberland E.C. to recommend County E.C. to purchase site for senior Council school at cost of £2,000.

Lowestoft.—T.C. recommend, subject to approval of B. of E. of plans, application be made to M.H. for sanction to borrow £450 for lavatory accommodation, play shelter and boundary walls at Arnold-st. school in accordance with the plans prepared by B.S.—Plans passed:—J. Knights & Sons, 10 houses, Avondale-rd.

Luton.—T.C. approved:—A. H. Horne, 12 houses, Thornhill-rd.; A. Mardle, 8 houses, Blenheim-crescent.; C. Rainbow, 3 garages and additions to shops, Biscot-rd.; B. K. Router, 10 houses, Sherwood-rd.; P. C. Chapman, 6 houses, Wychwood-av.

Machynlleth.—Brook Evans, S., to U.D.C., to prepare plans for 10 houses on Park Common.

Manchester.—It is announced that Thomas Hedley and Co., of New York, are to build new soap plant at Manchester.

Manchester.—Booth Tonge & Co., Ltd., 67, Church-st., Harpurhey, propose 16 houses, Lewis-av. and Goodman-st., Blackley.—North Manchester Builders (Newton Heath), Ltd., 2, Monsall-rd., propose 8 houses and bakehouse on Broadway, Moston.

Middlesbrough.—T.C. approved:—alterations at North Ormesby Hospital, Moses-st., Trustees of North Ormesby Hospital; 7 houses, Lytton-st., corner of Wellesley-rd., R. Tapster; 9 houses, Saltwells-rd., at corner of Breckon Hill-rd. and Wellesley-rd., Norman Thompson; 3 pairs semi-detached houses, Mandale-rd., 1 pair semi-detached houses, Newport-lane (Acklam-rd), at corner opposite filling station, W. A. King & Sons; 14 houses, Aden-st., Stephen Coates, Ltd.; 7 houses and house and shop, West-lane, N. Thompson.

Midlands.—Following schemes been approved by Wesleyan Methodist Connexional Chapel Committee: Wesley Chapel, West Bromwich (Wesley Circuit), new lecture hall, institute and vestries, to cost £2,957; Brownhills, Walsall (Wesley Circuit), rebuildings kitchen, etc., £120 Short Heath Willenhall Circuit), repairs, £150; Bromyard-rd. (Worcester Circuit), school extension and new heating apparatus, costing £500; Coppice-st. (Tipton Circuit), primary school, £150; Ryecroft (Gloucester Circuit), chapel and school alteration, etc., £1,126; Sunday school at Melville, in Ludlow circuit, £200.

Nairn.—T.C. agreed to expend about £500 in converting a school in town into fire station, with firemaster's house, etc.

Newcastle-on-Tyne.—Plans by Marshall & Tweedy, Mervyn House, Pilgrim-st., for extensions to premises of Moses, outfitter, etc., Grainger-st. Tenders not yet invited.—Contract not yet been placed for warehouse proposed to be built by Appleby, merchants. Plans by C. S. Errington, 46, Grainger-st. West, Newcastle.—Plans for extension of oil depot of Shell-Mex Oil Co. at Scotswood-rd. and tanks been approved.—Contract still to be placed for conversion of property near Haymarket into shops, offices and flats for Dixan & Bell, architects, Pearl-bldgs., Northumberland-st.—Laing & Co., Ltd., to carry out alterations and additions to premises in Prudhoe-st. Plans by Hetherington & Wilson, 52, Westgate-rd. No contracts placed.—Alterations proposed to warehouse of Willis, Ltd. Plans by T. E. Rayne, Newcastle.—C. S. Errington, 21, Grainger-st. West, architect for alterations at St. Ann's-row. Plans approved.—Northumberland C.C., in conjunction with City Council and Gateshead T.C., considering scheme for workshops for blind to cost £20,000. F. H. Holford, City Architect.—City Council approved:—24 houses, Alston-av., N. Willis; 18 houses, F. E. Dotchin, architect, 46, Grainger-st. West; sub-station in Osborne-ter., Newcastle Electric Supply Co., Merz & McLellan, Carliol House, architects.—Alterations proposed to "Gladstone Hotel," for W. B. Reid & Co., Upper Claremount. Architects, Hetherington & Wilson, 52, Westgate-rd.—City Council received sanction from M.H. to slum clearance scheme involving demolition of houses at Cut Bank, St. Peter's and Dunn's Cottages.—Council received application from J. B. Nicholls for lease of Jesmond Dene House, which he proposes to utilise as hostel for boys.

Newcastle-upon-Tyne.—Another important building development is to take place. Westgate House, Fenkle-st. and the surrounding spare land been sold recently, and a super garage and shops to be built on site. J. M. Clayton, Newcastle, is vendor, and the buyers are H. S. Sutherland, Thomas Hall, and A. E. Redson. Plans for shops been prepared by Marshall & Tweedy, architects. F. M. Dryden, 6, Market-st., prepared plans for alteration of houses into shops in Sandyford-rd. Tenders not yet invited.—Hospitals Sub-Committee decided to recommend Public Assistance Committee to proceed as early as possible with extensions to General Hospital.—Mission hall to cost £3,000 to be erected at St. Michael's Church, Byker, under Bishop of Newcastle's Church Extension Fund. Rev S. E. R. Fenning, 8, Pearl-bldgs.—Tenders expected to be invited early for new factory and warehouse for Sinton & Baxter Glass, Harrison & Ash, architects, 20, Saville-row.—Shop premises for Woodhouse, furnishers, etc., in Northumberland-st. Tenders invited shortly. Glass, Harrison & Ash, architects, 20, Saville-row, Newcastle.

Newport (I.O.W.).—Stratton & Millgate, architects, 21, Quay-st., prepared plans for warehouse premises, for Crouchers, Ltd., Quay-st.

Norwich.—Parochial Council of St. Alban's, Lakenham, propose church. C. Upcher, F.R.I.B.A., of Lacey & Upcher, architects, Upper King-st. Cost £14,000.

Nuneaton.—Atkin Bros., Regent-st., Hinckley, acquired factory on Coldwell Hall estate for extensions.

Oldham.—T.C. propose laying out estate off Abbeyhills-rd. and Turf Pitts-lane for housing estate. B.E.

Ormskirk.—Parochial Council Parish Church (Vicar, A. T. Parnell) proposes vicarage.

Penzance.—T.C. approved recommendation of Housing Committee that plan submitted by B.S. for lay-out of western portion of Penalverne estate with 82 non-parlour type houses be submitted to M.H., when application is made for sanction to borrow £8,000 for purchase of estate.

Peterborough.—T.C. approved:—J. Cracknell, Ltd., 3 pairs houses, garage, etc., Huntly-grove.

Poole.—R.D.C. supported a petition by Creekmore residents to County E.C. asking for provision of junior school at Creekmore.

Portsmouth.—T.C. approved:—Brown & Fuller, 8 houses and 6 garages, Kirby-rd.; J. Fay, 7 houses, Wellington-st.; G. Wallis, 29 houses, Devon-rd.; Portsea Island Mutual Co-operative Society, Ltd., rebuilding dairy depot, Cottage-lane; J. C. Nicholls, 8 houses, new road off Havant-rd.; Portsmouth and Brighton United Breweries, alterations, Russell-st.

Preston.—Board of Management of Royal Infirmary propose maternity ward.

Preston.—Catholic Authorities negotiating for land on Fishwick for school in connection with Church of the Little Flower.

Preston.—J. H. Mangan, L.R.I.B.A., 18, Guildhall-st., architect for additions to St. Joseph's Hospital, Mount-st.

Retford.—T.C. approved: East Retford C. of E. School Managers, alterations and additions to schools, Grove-st.

Rothbury.—Institution to be converted into a home for mentally defectives by Northumberland P.A.C. W. W. Tasker, County Architect, 17, Claremont-rd., Newcastle-on-Tyne, architect for scheme.

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Rotherham.—P.A.C. propose to acquire premises for adaptation of children's homes.—Health Committee propose utilisation of Kimberworth Smallpox Hospital for physically defective children.—E.C. propose convalescent home for children.—T.C. propose extensions at public abattoir. B.E.

St. Neots.—U.D.C. adopted suggestion of experts, Taylor and Sons, that they should get out specifications and advertise for tenders for waterworks extension scheme.

Sawbridgeworth.—On recommendation of Housing Committee U.D.C. decided that tenders should be invited for internal decorative repairs to Council houses in Westway.

Seaham Harbour.—Sanction to borrow £43,000 for 136 houses on Deneside estate been received by U.D.C. Revised estimate of £8,300 for construction of roads and sewers on estate been prepared by S.

Sheffield.—C. B. Flockton & Sons, F.R.I.B.A., 15, St. James-row, architects for church of St. Aidan's and for parochial hall for St. Swithun's Parish Manor estate.

Sheffield.—T.C. approved: 38 houses, Stannington View-rd., etc., Miss I. M. Hellewell; 7 houses, Ankley-rd., S. Bannister.

Sheffield.—Thrift Store, Ltd., grocers, etc., Leeds, acquired two sites on Shiregreen estate for shopping centre.

South Molton.—R.D.C. approved plans for 8 non-parlour type houses for Bishop's Nympton. Tenders to be invited.

South Shields.—T.C. received sanction from M.H. to borrow £2,891 for purchase of land and £25,265 for 96 flats on Egerton-rd, portion of Farnham-rd. and Egerton-rd. housing scheme.

Stourbridge.—"Mitre Inn," corner of Enville-st. and High-st., to be rebuilt for Mitchells & Butlers, Ltd., brewers, of Cape Hill Brewery, Cape Hill, Smethwick, Birmingham.

Sunderland.—T.C. to invite tenders for 130 houses, Commercial-rd., Westmoor-rd. and Carley Hill housing estates. Plans in preparation for 148 houses in Newcastle-rd. T. P. Collinge, B.E.—Subject to approval of B. of E., E.C. to erect new schools on Ford estate and in Commercial-rd.

Swansea.—C.B. resolved that painting and redecoration of Fairwood hospital recommended by Borough Architect at £182.—Council resolved that application be made to M.H. for formal sanction to invite tenders for further 100 houses (14th contract) on Mayhill site.—Plans passed:—90 houses, Garnlas estate, for T. & G. Spragg; 32 houses, new road off Sketty Park-rd., Syd Davies.

Tamworth.—J. P. Matthews, 13, Aldergate, architect for extensions to Felix Mills, Mill-lane, for E. B. Hamel & Son.

Tetbury.—U.D.C. to build 12 houses.

Tynemouth.—Plans approved by T.C. for 12 houses, Manor estate. W. Stockdale, Howard-st., North Shields, architect.—Plans for alterations to "Hope Inn," Norfolk-st., for E. Richardson, been approved by T.C.—Premises in Nile-st. and Russell-st. to be altered for J. A. R. Ellis & Son. Plans by J. R. Wallace, 20, Northumberland-sq., North Shields.—Plans by T. A. Page & Son, 67, King-st., South Shields, for alterations to "Rising Sun" public-house, Beacon-st.—E.C. to erect school on Chirton Farm estate to accommodate 480 boys and 480 girls. J. L. Beckett, B.E. Savings Bank, 54, Saville-st., North Shields, to carry out alterations to premises to plans by F. R. N. Haswell & Sons, 77, Tyne-st., North Shields.

Tynemouth.—Scheme to convert part of Tynemouth Plaza into public shelter accommodating 600 or 700 people being considered by T.C.

Vale-of-Levan.—Extension to Academy Primary School proposed at £9,000. J. Weekes, architect, 18, Park-circus, Glasgow.

Wakefield.—T.C. approved:—C. F. Napper, 56 houses, Agbrigg and Doncaster-rds.

Wallasey.—T.C. propose open-air swimming bath. B.E.

Walton-le-Dale.—U.D.C. propose mortuary in Charnley Fold-rd.

Washington.—Isolation block to cost £2,250 to be erected at Dame Margaret's Home by committee.

West Hartlepool.—T.C. approved: Groves and Gregory, 6 houses, Helmsley-st.; J. C. Moffat, 6 houses and 2 garages, Caledonian-rd.; F. Craven, 13 houses, Wynnstay-gds.; Ragian Quoit Club, club premises, Clarence-rd., and Stuart-st.; J. J. Fox, 12 houses, Wynnstay-gds.

West Lancashire.—Council received M.H. approval to plans submitted by Council for various housing schemes.

Whitley Bay.—Funds being raised to build permanent Sunday school room for Oxford-st. Methodist Church.

Whitley Bay.—Northumberland C.C. purchased 9, Laburnum-av. for conversion into a children's court and offices. A. Cheyne, C.S., Moothall, Newcastle-on-Tyne.

Wigan.—Plans approved: Eight houses, Warnford-st., G. Hall; addition to grandstand at Poolstock Greyhound Racing Track, T. Kenyon; five houses off Warrington-lane, G. Hall.

Winsford.—Chester's Brewery Co., Ltd., Ardwick Brewery, Manchester, proposes alterations to "Prince of Wales Feathers," Station-rd. Plans by Powles & King, F. & A.R.I.B.A., 7, Winnington-st., Northwich.

Wolverhampton.—T.C. approved:—A. C. Jesson, 8 houses, Fellows-st. and Upper Villiers-st.; Montague Burton, Ltd., business premises (revised plan), Darlington and Victoria-sts.; Foster Radbone, 9 houses, corner Owen-rd. and Merridale-st., W.; Y.W.C.A., extension to existing building, Penn-rd.; W. Moore, 5 houses and garages, Tettenhall-rd.; Electricity Committee, sub-station, Rowlands-av.

York.—T.C. approved: St. Denys' School Committee, additions, St. Denys' School, Piccadilly.

PRICES CURRENT OF MATERIALS.*

Owing to the exceptional circumstances which prevail at the present time, prices of materials should be confirmed by inquiry.

BRICKS, &c.

Per 1,000 Alongside, in River Thames up to London Bridge.

	£ s. d.
Best Stocks	4 3 6
Second Hard Stocks	3 18 6

Per 1,000. Delivered at London Goods Stations.

	£ s. d.		£ s. d.
Flettons, at			
King's Cross ...	2 11 3	Best Blue Pressed Staffs	9 5 0
Do., grooved for Plaster ...	2 13 3	Do. Bullnose	9 15 0
Do., Bullnose ...	3 5 3	Blue Wire Cuts	7 5 0
White Midhurst Facing Bricks (delivered London site)	5 0 0		
Best Stourbridge Fire Brick :—			
2½ in. ...	8 11 0	3 in. ...	10 3 0
GLAZED BRICKS—			
Best White Ivory and Salt Glazed Stretcher ...	21 0 0	D'bie Str'tch'rs	29 10 0
		D'bie Headers	26 10 0
		One Side and two Ends	30 10 0
Headers ...	20 10 0	Two Sides and one End ...	31 10 0
Quoins, Bullnose and 4½ in. Flats ...	27 10 0	Splays, and Squints ...	28 0 0

Second Quality, £1 per 1,000 less than best. Cream and buff, £2 extra over white. Other colours. Hard Glaze, £5 10s. extra over white.

BREEZE CONCRETE SLABS.

Delivered London.

	s. d.		s. d.
2 in. per yd. super	1 11	3 in. per yd. super	2 9
2½ in. „ „	2 4	4 in. „ „	3 6

	s. d.	
Thames Ballast	8 0	per yd. delivered 2 miles radius Paddington.
Pit Sand	11 0	„ „
Thames Sand	11 0	„ „
Best Washed Sand	11 6	„ „
½ in. Shingle for Ferro-Concrete	8 6	„ „
¾ in.	11 0	„ „
¾ in. Broken Brick	10 6	„ „
Pan Breeze	8 0	„ „

Per ton delivered in London area in full van loads.

Best Portland Cement. British Standard Specification. Test

In Jute Sacks (11 to ton)	£2 4 9	to	£2 6 9
In Free Paper Bags (20 to ton)	2 6 0	to	2 8 0

Alongside Vauxhall in 80 Ton Lots

Jute Sacks (11 to ton)	1 17 9
Free Paper Bags (20 to ton)	1 19 0
Ferrocrete per ton extra on above	0 7 6
Vitocrete per ton extra on above	0 7 6
Lightning Brand Aluminous Cement in Jute Sacks (20 to ton)	5 2 9 to 5 8 3

NOTE.—Jute Sacks are charged 1s. 6d. each and credited 1s. 6d. each nett if returned in good condition within three months carriage paid.

Super Cement (Waterproof) Paper Bags free	3 16 0
Ciment Fondu (F.O.R. Works)	4 15 0
Roman Cement	6 15 0
Parian Cement	5 15 0
Keene's Cement, White	5 15 0
„ „ Pink	5 10 0
Plaster, Coarse, Pink	3 0 0
„ „ White	3 12 6
„ Fine	4 12 0
Sirapite, Coarse	3 9 0
„ Finish	3 17 0
Grey Stone Lime	2 10 9
Chalk Lime	2 10 9
Best Ground Blue Lias Lime	1 17 6
Hair ... per cwt.	2 2 6
Granite Chippings	1 12 0

NOTE.—Sacks are charged 1s. 9d. each and credited 1s. 6d. if returned in good condition within three months carr. pd.

Stourbridge Fireclay in s'cks 37s. 0d. per ton at rly. dp.

STONE.

	s. d.
BATH STONE.—Delivered in railway trucks at Westbourne Park, Paddington, G.W.R., or South Lambeth, G.W.R., per ft. cube	2 10
BEER STONE.—RANDOM BLOCK—	
Free on rail at Seaton Station per ft. cube	2 8
Delivered free on rail Nine Elms, S.R. per ft. cube	3 1½
Selected approximate size one way, 1d. per cubic foot extra; selected approximately three sizes or for special work, 3d. per cubic foot extra.	
PORTLAND STONE—	
Brown Whitbed, in random blocks of 20 ft. average, delivered in railway trucks at Nine Elms, S. Rly., South Lambeth Station, G.W.R., and Westbourne Park Paddington, G.W.R., per ft. cube	4 4½
Do. do. delivered on road waggons at above stations, per ft. cube	4 5½
White basebed, 3d. per ft. cube extra.	
NOTE.—1d. per ft. cube extra for every foot over 20 ft. *average*, and ½d. beyond 30 ft.	
CHILMARK—RANDOM BLOCK—	
At Nine Elms, per ft. cube	3 11
HOPTON-WOOD STONE—	s. d.
F.O.R. Quarries, Wirksworth, Derbyshire, Random blocks from 10 ft. and over P. ft. cb.	14 0
Sawn two sides „	22 6
Sawn three or four sides „	27 6
YORK STONE, BLUE—*Robin Hood Quality.* Delivered at any Goods Station, London.	
6 in. sawn two sides landings to sizes (under 30 ft. super) ... Per ft. super	5 6
6 in. rubbed two sides, ditto ... „	6 0
3 in. sawn two sides slabs (random sizes) „	2 3½
2 in. to 2½ in. sawn one side slabs (random sizes) „	1 6½
1½ in. to 2 in. ditto., ditto „	1 3½
HARD YORK—	s. d.
Delivered at any Goods Station, London. Scappled random blocks ... Per ft. cube	6 3
6 in. sawn two sides landing to sizes (under 40 ft. super) ... Per ft. super	5 1½
6 in. rubbed two sides, ditto ... „	6 1½
4 in. sawn two sides slabs (random sizes) „	3 1½
3 in. ditto ditto „	2 8
2 in. self-faced random flags ... Per yd. super	8 0

CAST STONE.

Delivered in London area in full van loads, per ft. cube: Plain, 8s. 6d.; Moulded, 9s. 6d.; Cills, 10s. 0d.

WOOD.

GOOD BUILDING DEAL.

Inches.	per stan.	Inches.	per stan.
4 × 11	£24 10	3 × 6	£17 0
4 × 9	20 0	3 × 11	19 10
4 × 8	20 0	2 × 11	19 10
4 × 7	18 0	3 × 9	19 10
3 × 8	18 0	2½ × 9	19 10
3 × 7	18 0	3 × 4½	17 10
2½ × 7	18 0	3 × 4	17 10

PLANED BOARDS.

1 × 11 ... £22 10 | 1 × 9 ... £21 0

PLAIN EDGE FLOORING.

Inches.	per sq.	Inches.	per sq.
⅝	16/-	1½	25/-
¾	17/-	1¾	27/6
1	20/-		

TONGUED AND GROOVED FLOORING.

Inches.	per sq.
1	21/-
1¼	26/-
1½	27/6

MATCHING (BEST).

Inches.	per sq.
⅝	15/-
¾	16/6
1	20/-

ins. BATTENS.	s. d.
⅝×2 ... per 100 ft.	2 0

SAWN LATHS.	s. d.
Per bundle	2 3

1 INCH AND UP THICK.

Average price for prime quality.

	£ s. d.
Dry Austrian Wainscot, per ft. cube	0 15 0
Dry American and/or Japanese Figured Oak, per ft. cube	0 12 0
Dry American and/or Japanese plain Oak, per ft. cube	0 10 0
Dry sq. edged Honduras Mahogany, per ft. cube	0 14 0
Dry log-cut Honduras Mahogany, per ft. cube	0 16 0
Dry Cuba Mahogany, per ft. cube	1 1 0
Dry Teak, per ft. cube	0 14 0
Dry American Whitewood, per ft. cube	0 10 0
Best Scotch Glue, per cwt. ... £4 10 0	to —
Liquid Glue, per cwt.	4 7 0 to 5 10 0

SLATES.

First quality slates from Bangor or Portmadoc, carriage paid in full truck loads to London Rate Station. Per 1,000 actual.

	£ s. d.		£ s. d.
24 by 12	30 0 0	18 by 10	16 10 0
22 by 12	26 10 0	18 by 9	14 12 6
22 by 11	24 10 0	16 by 10	14 5 0
20 by 12	24 0 0	16 by 8	11 0 0
20 by 10	20 2 6		

TILES.

Delivered at London rate stations in full truck loads of not less than 6 tons. Per 1,000. f.o.r. London.

	£ s. d.
Best machine-made tiles from Broseley or Staffordshire district	£4 10 0
ditto hand-made ditto	5 3 6
Ornamental ditto	5 8 6
Hip and valley tiles (per dozen) { Hand-made	0 9 6
{ Machine-made	0 9 0

METALS.

JOISTS, GIRDERS, &c., TO LONDON STATION, PER TON—

	£ s. d.
R.S. Joists, cut and fitted	£11 0 0
Plain Compound Girders	12 0 0
„ Stanchions	15 0 0
In Roof Work	18 0 0

MILD STEEL ROUNDS.—To London Station, per ton.

Diameter.	£ s. d.	Diameter.	£ s. d.
½ in.	12 0 0	⅝ in. to ¾ in.	10 15 0
⅜ in.	11 0 0	⅞ in. to 2½ in.	10 10 0

WROUGHT-IRON TUBES AND FITTINGS—(Discount off List for lot of not less than £7 net value delivered direct from Works, 2½ per cent. less above gross discounts, carriage forward, if sent from London Stocks.)

	Standard Wrot. Mild Steel Tubes and Tubulars Sizes ⅛in. to 6in.	Genuine Wrot. (Puddled) Iron Tubes and Tubulars Sizes ⅛in. to 6in.	Standard Fittings Sizes ⅛in. to 6in.	Standard Flanges Sizes ⅛in. to 6in.
	%	%	%	%
Gas	65	52½	57½	70
Water ...	61½	48½	52½	65
Steam ...	57½	45	47½	60
Galv. gas	52½	40	47½	60
Galv. water	47½	35	42½	55
Galv. steam	42½	30	37½	50

C.I. HALF-ROUND GUTTERS—London Prices ex Works.

Per yd. in 6 ft. lengths.	Gutters.	Angles and Nozzles.	Stop Ends.
3 in.	11d.	1/5	5d.
3½ in.	11½d.	1/7	5d.
4 in.	1/-	1/9	5d.
4½ in.	1/1½	2/-	6d.
5 in.	1/5	2/2	8d.
	Q.G. GUTTERS.		
3 in.	1/1	1/11	5d.
3½ in.	1/2	1/11	5d.
4 in.	1/2½	2/-	5d.
4½ in.	1/4	2/4	6d.
5 in.	1/6½	2/8	8d.

RAIN WATER PIPES, &c.

Per yd. in 6 fts.	Pipe.	Bends, stock angles.	Branches. stock angles.
2 in.	1/3½	1/9	2/7
2½ in.	1/4½	2/-	3/1
3 in.	1/8½	2/6	3/9
3½ in.	2/1½	3/-	4/4
4 in.	2/5	3/7	5/3

Connections—50 per cent. off above prices.
Tonnage allowance—4 ton lots, 5 per cent.
2 ton lots, 2½ per cent.

L.C.C. COATED SOIL PIPES—London Prices ex Works.

	Pipe, angles, stock angles.	Bends, stock angles.	Branches. stock angles.
	s. d.	s. d.	s. d.
2 in. per yd. in 6 fts.	1 11	1 6½	1 10½
2½ in. „	2 3½	1 8½	2 4
3 in. „	2 4½	1 10½	2 9½
3½ in. „	2 7	2 4	3 3
4 in. „	2 11	2 7½	3 9

L.C.C. COATED DRAIN PIPES—London Prices ex Works.

	Pipe, angles, stock angles.		Bends, stock angles.	
	s. d.		s. d.	
3 in. per yd. in 9 ft. lengths ...	3 4		4 3	6 8
	cwt.	qr.	lbs.	
4 in. „	1	1	20 ...	4 7 5 2 8 10
5 in. „	1	2	22 ...	6 0 9 0 14 3
6 in. „	2	0	6 ...	6 8 10 11 18 1

Gaskin for jointing 41/- per cwt.

	Per ton in London. £ s. d.		£ s. d.
IRON—			
Common bars	10 10 0	to	11 0 0
Staffordshire Crown Bars—Good merchant quality ...	10 15 0	to	11 10 0
Staffordshire Marked Bars	14 0 0	...	15 0 0
Mild Steel Bars	9 10 0	...	10 0 0
Steel Bars, Ferro-Concrete quality, basis price	8 0 0	...	9 0 0
Hoop iron, basis price	11 0 0	...	12 0 0
„ Galvanised	27 0 0	...	28 0 0
Soft Steel Sheets, Black—			
Ordinary sizes, to 20 g.	11 0 0	...	11 10 0
„ „ „ 24 g.	12 0 0	...	13 0 0
„ „ „ 26 g.	14 0 0	...	15 0 0
Sheets Flat Best Soft Steel, C.R. and C.A. quality—Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 20 g. ...	13 10 0	...	14 10 0
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 22 g. and 24 g.	14 10 0	...	15 10 0
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 26 g. ...	17 10 0	...	18 10 0
No. 1 quality £4 per ton extra.			
Flat and Galvanised Corrugated Sheets—Ordinary sizes, 6 ft. to 9 ft. to 20 g.	13 0 0	...	14 0 0
Ordinary sizes, 6 ft. to 9 ft. to 22 g. and 24 g.	14 10 0	...	15 10 0
Ordinary sizes, 6 ft. to 9 ft. to 26 g.	16 10 0	...	17 10 0
Sheets Galvanised Flat, Best quality—Best Soft Steel Sheets, 6 ft. by 2 ft. to 3 ft. to 20 g. and thicker	18 0 0	...	19 0 0
Best Soft Steel Sheets, 22 g. and 24 g.	20 0 0	...	22 0 0
Best Soft Steel Sheets, 26 g.	21 10 0	...	23 0 0
Cut Nails, 3 in. to 6 in.	15 0 0	...	16 0 0
(Under 3 in. usual trade extras.)			

METAL WINDOWS.—Standard sizes, suitable for complete houses, including all fittings, painting two coats, and delivery to job, average price about 1s. 4d. to 1s. 7d. per foot super.

COPPER.

	s. d.
Seamless Copper tubes (basis ... per lb.	0 9½
Strong sheet ... „	0 10
Thin ... „	0 11
Copper nails ... „	1 0
Copper wire ... „	0 11

PLUMBERS' BRASS WORK.
Delivered in London.

NEW RIVER PATTERN SCREW DOWN BIB COCKS FOR IRON.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
29/-	45/-	76/-	153/-	246/-	510/- per doz.

NEW RIVER PATTERN SCREW DOWN STOP COCKS AND UNIONS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
41/6	62/-	92/-	174/-	300/-	588/- per doz.

RIVER PATTERN SCREW DOWN MAIN FERRULES.

½ in.	¾ in.	1 in.	
39/6	60/-	116/6	per doz.

CAPS AND SCREWS.

1¼ in.	1½ in.	2 in.	3 in.	3½ in.	4 in.	
7/6	10/-	14/-	23/-	30/-	42/-	per doz.

DOUBLE NUT BOILER SCREWS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.	
7/6	11/-	17/-	29/-	36/-	63/-	per doz.

BRASS SLEEVES.

1½ in.	2 in.	3 in.	3½ in.	4 in.	
10/-	12/-	20/-	24/-	31/-	per doz.

NEW RIVER PATTERN CROYDON BALL VALVES S.F.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	
35/-	56/-	98/-	162/-	228/-	per doz.

DRAWN LEAD P. & S. TRAPS WITH BRASS CLEANING SCREW.

1½ in.	1½ in.	2 in.	3 in.	
8 lbs. P. traps ...	33/-	41/-	56/-	101/- per doz.
8 lbs. S. traps ...	35/-	45/-	66/-	126/- „

TIN.—English Ingots, 1/7 per lb. SOLDER.—Plumber's 9d., Tinmen's 10d., Blowpipe 11d. per lb.

* The information given on this page has been specially compiled for THE BUILDER, and is copyright. The aim in this list is to give, as far as possible, the *average* prices of materials, not necessarily the highest or lowest. Quality and quantity obviously affect prices—a fact which should be remembered by those who make use of this information.

PRICES CURRENT OF MATERIALS—(*cont.*)

LEAD, &c.

	£ s. d.
(Delivered in London.)	
LEAD—Sheet, English, 4 lb. and up	21 10 0
Pipe in coils	22 0 0
Soil pipe	25 0 0
Compo pipe	25 10 0

NOTE.—Country delivery, 20s. per ton extra: lots under 3 cwt. 3s. per cwt. extra, and over 3 cwt. and under 5 cwt., 1s. 6d. per cwt. extra. Cut to sizes 5s. cwt. extra.

Old lead, ex London area, at Mills ..... per ton £13 0 0

PAINTS, &c.

		£ s. d
Raw Linseed Oil, in pipes	per gallon	0 1 11
,, ,, ,, in barrels	,,	0 2 1
,, ,, ,, in drums	,,	0 2 4
Boiled ,, ,, in barrels	,,	0 2 5
,, ,, ,, in drums	,,	0 2 7
Turpentine in barrels	,,	0 5 0
,, in drums (10 galls.)	,,	0 5 2
Genuine Ground English White Lead, per ton (In not less than 5-cwt. casks.)		45 0 0

Extra for 1-cwt. kegs over 5-cwt. casks is 5/9 cwt.

GENUINE WHITE LEAD PAINT.

	£ s. d.
"Father Thames." "Nine Elms," "Park," "Supremus," "St. Paul's," "Morganawyte," "Polacco," "J" Brand, and other best brands (in 14-lb. tins) not less than 5 cwt. lots. per ton delivered	63 0 0
Red Lead, Dry (packages extra) ... per ton	34 0 0
Best Linseed Oil Putty ..... per cwt.	0 13 6
Size. XD quality ..... fkn.	0 3 0

GLASS.

ENGLISH SHEET GLASS IN CRATES OF STOCK SIZES.

Per ft.		Per ft.
15 oz. fourths ... 2½d.	32 oz. fourths	7½d.
15 ,, thirds ... 3½d.	32 ,, thirds.....	9½d.
21 ,, fourths ... 3½d.	Obscured Sheet, 15 oz. ...	3½d.
21 ,, thirds ... 4½d.	,, ,, 21 oz. ...	4½d.
26 ,, fourths ... 4½d.	Fluted, 15 oz. 7d., 21 oz....	9½d.
26 ,, thirds ... 7½d.	Em'lled, 15 oz. 4½d., 21 oz.	6d.

Extra price according to size and substance for squares cut from stock.

ENGLISH ROLLED plate in CRATES OF STOCK SIZES.

	Per ft.
Rolled plate	4½d.
Rough rolled	5½d.
Rough rolled	5½d.
Figured Rolled, Baltic, Oceanic, Arctic, Stippolyte, and small and large Flemish White	5½d.
Ditto, tinted	8d.
Rolled Sheet	4½d.
White Rolled Cathedral	4½d.
Tinted do.	6½d.

Cast plate is same price as rough rolled.

"VITA" GLASS.	Per foot. s. d.
Clear sheet—not exceeding 1 foot	1 0
Do. do. 2 feet	1 3
Do. over 2 feet	1 9
Polished plate—not exceeding 1 foot	1 6
Do. not exceeding 2 feet.....	3 0
Cathedral—not exceeding 1 foot	1 0
Do. larger sizes	1 6
Horticultural—for greenhouses, etc. Sizes up to 24 inches by 18 inches or not exceeding 3 feet	1 0
3/16 in. Wired Georgian Design. Sizes up to 108 inches long by up to 24 inches wide	2 6

VARNISHES, &c.

		Per Gallon. £ s. d.
Oak Varnish	Outside	0 14 0
Fine ditto	ditto	0 16 0
Fine Copal	ditto	0 18 0
Pale Copal	ditto	1 0 0
Pale Opal Carriage	ditto	1 4 0
Best ditto	ditto	1 12 0
Floor Varnish	Inside	0 18 0
Fine Pale Paper	ditto	0 18 0
Fine Copal Cabinet	ditto	1 2 0
Fine Copal Flatting	ditto	1 0 0
Hard Drying Oak	ditto	0 18 6
Fine Hard Drying Oak	ditto	0 19 6
Fine Copal Varnish	ditto	1 0 0
Pale ditto	ditto	1 12 6
Best ditto	ditto	1 2 6
Best Japan Gold Size		0 12 0
Best Black Japan		0 10 0
Oak and Mahogany Stain (water)		0 12 6
Brunswick Black		0 7 0
Berlin Black		0 14 0
Knotting (patent)		1 5 0
French and Brush Polish		0 17 0
Liquid Dryers in Terebene		0 9 0
Cuirass Black Enamel		0 7 0

An Academy Portrait.

The Establishment Committee of the London County Council report that a portrait of Sir Robert Tasker, D.L., J.P., as Past-President of the Incorporated Association of Architects and Surveyors, painted by Mr. Percy J. Jones, a senior assistant in the department of the Clerk of the Council, is on exhibition at the Royal Academy. Mr. Jones studied at the Lambeth School of Art and the City and Guilds of London Technical Art School.

NATIONAL HARDWARE ASSOCIATION

AT a luncheon of this Association on May 12, an address on "Standardisation and British Standards in the Hardware Industry" was given by Mr. P. Good (Deputy Director, British Standards Institution). After tracing the history of the British Standards Institution from its foundation in 1901 up to to-day, when the Institution comprises 600 committees covering the building, chemical and engineering industries, the speaker remarked that the work of standardisation as carried out by the British Standards Institution had been entirely built on the recognition of the community of interests of manufacturer, distributor, and purchaser.

Having started on the work of reducing the redundant sizes of steel sections, it was soon realised that many other problems besides mere dimensions of things needed to be dealt with. To-day the term standardisation had achieved a very wide meaning. It implied the establishment of an agreed technical basis for the purchase of any commodity, or an agreed basis on which the design could be worked out by the engineer, whether the commodity were a simple material, such as solder or brass or steel sections, or the steel structure of a large building, or even a bridge. British Standard Specifications, of which there were 500 or 600 in number, and which were growing in numbers very rapidly, covered already a very wide field. The British Standards Institution set up Local Committees in the Dominions in order to keep watch on the regulation-making authorities with a view to seeing that British Standard products were not excluded. Subsequently, many of these developed into standards organisations on their own, operating in the closest co-operation with the British Standards Institution. At the last Imperial Conference, the governments of every Dominion were urged to bring about more and closer co-operation. Last November, with that end in view, at the instigation of the Board of Trade and with the assistance of the Empire Marketing Board, the Council of the Institution agreed to accept the invitation of the New Zealand Government for the Director, Mr. le Maistre, to visit Australia, New Zealand and Canada. The last two Imperial Conferences had shown the desirability of the creation of uniform standards throughout the Empire, which obviously would lead eventually to British Empire Standards.

As to standardisation in the hardware industry, the need was considerable. There were British Standards for a number of items, cast-iron pipes, tanks, cisterns, but there was room for more, and as the preparation of British Standard specifications was not started unless a request was made by a responsible body, it was really up to manufacturers or retailers to look round and see where more standard specifications or simplification by elimination of redundant sizes would be helpful to the industry, and then to ask the Institution to take action.

NEW BUILDINGS IN SCOTLAND

Dalkeith.—HOUSES.—Mr. J. L. M'Dougal, Burgh Surveyor, forwarded to Department of Health the lay-out and plans of various types of houses, of which 140 in all are to be erected under the Dalkeith Housing Scheme No. VI.

Dumfries.—BUILDING.—The Dean of Guild Court approved of the erection of blocks of houses in St. Michael-street, Burns-street, and Terregles-street, for the T.C. Other applications granted were:—Messrs. Alexander Steel & Son, joiners, Howgate-street—six houses in Terregles-street at £4,000; Messrs. A. J. Scott & Son, Ltd., 96, David-street, Mile-end, Glasgow—new shop at the corner of Castle-street and Friars' Vennel, at £2,500.

Dundee.—BUILDINGS.—Plans and sections of the following proposed new buildings, etc., have been lodged at the Office of the City Engineer:—Barrack-road—fire-escape stairs, etc., for D.R.I (Messrs. Johnston & Baxter, architects, 114, Seagate); Cowgate—alterations for the National Bank of Scotland (Messrs. Johnston & Baxter, architects); Hillside-road—house for Mr. W. Black (Mr. W. M. Patrick, architect, 26, Yeaman-shore); Lawton-road—houses for the T.C.; Mains-road—alterations for Annie Fyfe (Messrs. Gordon & Scrymgeour, architects, 7, Ward-road); Mary Ann-lane—motor sheds for D. P. and L. Shipping Co., Ltd. (Messrs. Maclaren, Soutar & Salmond, architects, 15, South Tay-street); North-street—stable for Dundee Pasteurised Milk Co., Ltd. (Mr. Robert Gibson, architect, 2, India-buildings); North Lindsay-street—alterations for Messrs. John Menzies & Co., Ltd. (Messrs. Gordon & Scrymgeour, architects, 7, Ward-road); Seymour-street—garage for Mr. J. Levy (Messrs. James Lowe & Co., architects, 104, Commercial-street); Westport—alterations for Messrs. A. Massey & Sons, Ltd. (Mr. Joseph Johnston, architect, 32, Bank-street).

Edinburgh.—HOUSING.—Warrant for the erection of over 200 houses at Granton Mains housing area at Granton-road was granted to the Edinburgh Corporation by Edinburgh Dean of Guild Court. Other warrants granted included the following:—The Blythe Building Co.—garages and offices in Hyvot's Bank-road, Gilmerton; Carleton Henry Dunlop—44 houses, Blinkbonny-road and Orchard-road; George Robinson—five bungalows in Stoneyport, Lanark-road, Slateford.

Glasgow.—SHOPS.—The Streets and Buildings Committee has recommended the proposed construction by the L.M. and S. Rly. Co. of shops at the Central Railway Station fronting Gordon-street.

Monifieth.—HOUSING.—The Town Council has decided to proceed with its housing scheme.

Musselburgh.—HOUSES.—The Town Council has approved of the lay-out of another 100 houses.

BUILDING TRADE WAGES IN SCOTLAND*

Following are grade rates authorised by the Scottish N.J.C. for Building Industry. The bricklayers in the Glasgow district have ½d. per hour extra. It should be noted that plasterers and painters who are not parties to the Scottish N.J.C. pay higher wages of 1d. and ½d. per hour extra respectively. Every endeavour is made to ensure accuracy, but we cannot be responsible for errors that may occur.

Grade Classifications ...	A	A¹	A²	A³	B	B¹	B²	B³
Craftsmen	1/6½	1/6	1/5½	1/5	1/4½	1/4	1/3½	1/3
Labourers	1/2	1/1½	1/1½	1/0½	1/0½	1/-	/11½	/11½

Aberdeen	A	Dundee	A	Hawick	A³	Perth	A
Airdrie	A	Dunfermline	A	Helensburgh	A	Perthshire	A³
Alexandria	A	Dunoon	A	Inverness	B	Peterhead	A³
Arbroath	A³	East Lothian	A	Kilmarnock	A	Renfrewshire	A
Ayrshire	A	Edinburgh	A	Kincardineshire	A³	Rothesay	A
Bathgate	A	Falkirk	A	Kinross-shire	A	Roxburghshire	A³
Bo'ness	A	Forfarshire	A³	Kirkcaldy	A	St. Andrews	A
Broughty Ferry	A	Fort William	A	Lanarkshire	A	Selkirkshire	A³
Clackmannanshire	A	Galashiels	A³	Leith	A	Stirling	A
Coatbridge	A	Glasgow	A	Midlothian	A	Stirlingshire, West	A³
Dumbartonshire	A	Greenock	A	Motherwell	A	West Lothian	A
Dumfries	A³	Hamilton	A	Peeblesshire	A³	Wishaw	A
Dumfriesshire	A³						

* The information given in this table is copyright. The rates of wages in various towns in England and Wales are given on page 909.

CURRENT PRICES FOR BUILDING WORK IN LONDON*

EXCAVATOR.

		s.	d.
Digging and throwing or wheeling and filling carts, and carting away to shoot—6 ft. deep	per yard cube	9	9
Add if in clay	" "	1	0
Add for every additional depth of 6 ft.	" "	0	6
Planking and strutting to trenches	per foot super	0	4
Do. to sides of excavation, including shoring	" "	1	0

CONCRETOR.

Portland cement concrete in foundation 1 to 6	per yard cube	27	0
Add if in underpinning in short lengths	" "	6	0
Add if in floors 6 in. thick	" "	2	6
Add if in beams	" "	3	0
Add if aggregate 1 : 2 : 4	" "	10	0
Add for hoisting not exceeding 10 ft. beyond the first 10 ft.	" "	2	0

BRICKLAYER.

		£	s.	d.
Reduced brickwork in lime mortar and Fletton bricks	per rod	30	0	0
Add if in stocks	"	7	10	0
Add if in Staffordshire blues	"	22	0	0
Add if in Portland cement and sand	"	1	5	0

FACINGS.

Extra for facing in English or Flemish bond for every 10s. per 1,000 over the price of the common bricks	per ft. super	0	0	1½

POINTING.

Neat flat struck or weathered joint	" "	0	0	3

ARCHES.

Extra only to the price of ordinary brickwork :—				
Fair external in half brick rings	" "	0	0	10
Axed in stocks	" "	0	0	9
Rubbed and gauged jointed in putty camber or segmental	" "	0	6	0

SUNDRIES.

Damp course in double course of slates breaking joint and bedded in Portland cement	" "	0	1	0
Setting ordinary register grates and stoves	each	1	0	0
Setting kitchener, including forming flues, &c., with all necessary fire bricks		4	15	0

ASPHALTER.

		s.	d.
Half-inch horizontal damp course	per yard super	4	6
Three-quarter-inch vertical damp course	" "	9	6
Three-quarter-inch on flats in two thicknesses	" "	6	0
Angle fillet	per foot run	0	3
Skirting and fillet 6 in. high	" "	1	0

MASON.

York stone templates fixed	per foot cube	13	0
York stone sills fixed	" "	22	0
Bath stone and all labour fixed	" "	10	6
Beer stone and all labour fixed	" "	15	0
Portland stone fixed	" "	20	0
Chilmark stone fixed complete	" "	17	6

SLATER.

Welsh 16in. × 8 in. 3 in. lap, including nails	per square	72	9	
Do. 20in. × 10 in. Do. Do.	"	80	9	
Do. 24in. × 12in. Do. Do.	"	90	0	

CARPENTER AND JOINER.

Fir framed in plates	per foot cube	4	3	
Do. joists	" "	4	9	
Do. roofs, floors and partitions	" "	5	3	
Do. trusses	" "	7	9	

		¾"	1"	1½"	2"
Deal rough close boarding	per sq.	33/6	38/–	43/–	70/–
Flat centering for concrete floor, including struts or hangers	"	50	0		
Do. to beams	per ft. sup.	0	9		
Centre for arches	"	1	6		
Gutter boards and bearers	"	1	0		

FLOORING.

		¾"	1"	1½"	1½"
Deal-edges shot	per sq.	—	42/6	50/–	57/6
Do. tongued and grooved	"	—	47/–	56/–	64/–
Do. matchings	"	44/–	49/–	—	—
Moulded skirting, including backings and grounds	per ft. sup.	1/6	1/9	2/–	2/6

SASHES AND FRAMES.

		s.	d.
One-and-a-half moulded sashes or casements	per foot super	1	10
Two Do. Do. Do.	" "	2	1
Add for fitting and fixing	" "	0	3
Deal-cased frames with 1 in. inner and outer linings, 1½ in. pulley stiles tongued to linings, hard wood sills with 2in. moulded sashes in squares, double hung, double hung with pulleys, lines and weights; average size		3	9

DOORS.

		1¼"	1¾"	2"
Two-panel square framed	per ft. sup.	2/1	2/3	2/5
Four-panel Do.	"	2/4	2/6	2/9
Two-panel moulded both sides	"	2/6	2/9	2/11
Four-panel Do. Do.	"	2/9	2/11	3/2

CARPENTER AND JOINER—continued.

FRAMES.

		s.	d.
Deal wrot moulded and rebated	per foot cube	14	0

		1"	1¼"	1½"
Plain deal jamb linings framed	per ft. sup.	1/7	1/8	1/11
Deal shelves and bearers	"	1/4	1/6	1/9
Add if cross-tongued	"	2d.	2d.	2d.

STAIRCASES.

	1"	1¼"	1½"	2"	2½"
Deal treads and risers in and including rough brackets	2/1	2/4	2/9	—	—
Deal strings wrot on both sides and framed	1/8	2/–	2/2	2/8	—

		s.	d.
Housings for steps and risers	each	0	11
Deal balusters, 1 in. x 1¼ in	per ft. run	0	9
Mahogany handrail, average, 3 in. x 3 in.	" "	6	0
Add if ramped	" "	12	0
Add if wreathed	" "	24	0

FIXING ONLY IRONMONGERY (INCLUDING SCREWS).

6 in. barrel bolts	8½d.	Rim locks	2/–
Sash fasteners	11½d.	Mortice locks	4/6
Casement fasteners	1/5	Patent spring hinges and letting into floor and making good	19/–
Casement stays	1/2		
Cupboard locks	1/5		

FOUNDER AND SMITH.

		s.	d.
Rolled steel joists	per cwt.	15	3
Plain compound girders	"	18	0
Do. stanchions	"	20	9
In roofwork	"	26	6

RAIN-WATER GOODS.

		3"	4"	5"	6"
Half-round plain rebated joints	ft. run	1/4	1/7	1/9	2/–
Ogee Do. Do.	"	1/6	1/9	2/3	2/9
Rain-water pipes with ears	"	1/6	2/4	—	—
Extra for shoes and bends	each	3/4	4/11	—	—
Do. stopped ends	"	1/6	1/10	2/9	3/3
Do. nozzles for inlets	"	2/2	2/7	3/10	4/3

PLUMBER.

		s.	d.
Milled lead and laying in flashings and gutters	per cwt.	40	0
Do. Do. flats	"	39	0
Extra labour and solder in coated cesspools	each	6	9
Welt joint	per ft. run	0	6
Soldered seam	" "	1	3
Copper nailing	" "	0	3

		½"	¾"	1"	1½"	2"	4"
Drawn lead waste per ft. run		1/1	1/7	1/10	3/–	3/6	—
Do. service	"	1/6	2/–	2/5	3/6	—	—
Do. soil	"	—	—	—	—	—	6/–
Bends in lead pipe	each	—	—	—	—	3/–	6/6
Soldered stop ends	"	1/–	1/4	1/9	2/6	3/2	—
Red lead joints	"	11d.	1/–	1/3	1/11	2/4	4/10
Wiped soldered joints	"	2/6	3/–	3/6	4/4	5/6	7/9
Lead traps and cleaning screws	"	—	—	—	12/7	17/6	—
Bib cocks and joints	"	6/4	9/7	15/4	41/–	—	—
Stop cocks and joints	"	15/4	17/2	25/8	64/–	—	—

PLASTERER.

		s.	d.
Render, float and set in lime and hair	per yard sup.	2	3
Do. Do. Sirapite	" "	2	6
Do. Do. Keen's	" "	3	6
Add saw lathing	" "	1	7
Add metal lathing	" "	2	6
(Not including hangers or runners, etc., for suspended ceilings.)			
Portland cement screed	" "	2	2
Do. plain face	" "	3	3
Mouldings in plaster	per 1 girth	0	1
One-and-a-half granolithic pavings	per yard sup.	5	3½

GLAZIER.

21-oz. sheet plain	per foot sup.	0	7½	
26-oz. Do.	" "	0	10	
Obscured sheet	" "	1	1	
⅛-in. rolled plate	" "	0	9	
¼-in. rough rolled or cast plate	" "	0	10	
¼-in. wired cast plate	" "	1	3	

PAINTER.

Preparing and distempering, 2 coats	per yard sup.	0	9	
Knotting and priming	" "	0	7	
Plain painting, 1 coat	" "	0	9	
Do. 2 coats	" "	1	2	
Do. 3 coats	" "	1	9	
Do. 4 coats	" "	2	4	
Graining	" "	2	3	
Varnishing twice	" "	1	9	
Sizing	" "	0	3	
Flatting	" "	0	7	
Enamel	" "	1	1	
Wax polishing	per foot sup.	0	6	
French polishing	" "	1	2	
Preparing for and hanging paper	per piece, 2/– to 4/–			

*These prices apply to *new buildings only*. They cover superintendence by foreman and carry a profit of 10% on the prime cost without establishment charges. A percentage of 1½ should be added for Employers' Liability and National Health and Unemployment Act, and from 1s. 6d. per £100 for Fire Insurance. The whole of the information given on this page is copyright.

TRADE NEWS

An Asphalte Dividend.

The sixty-second ordinary general meeting of the Val de Travers Asphalte Paving Co., Ltd., was held on May 18. A final dividend of 9d. per share, making 6¼ per cent. for the year, was announced. The net profits for the year were £27,358. A balance of £21,067 17s. 9d. is carried forward.

Vacuum Cleaning.

A folder drawing attention to the principles of the Lamson system of vacuum cleaning has been issued by the Lamson Pneumatic Tube Co., Ltd., from 132, Cheapside, E.C.2. Illustrations of some of the varied buildings in which this system has been put brighten what is an informative publication.

A General Joinery Catalogue.

Messrs. Sharp Bros. and Knight, Ltd., the joinery manufacturers and timber importers, of Burton-on-Trent, issue their new general joinery catalogue. A full range of high-class work is illustrated and specified, any example of which is immediately available from stock. A special feature is made of executing joinery to architects' designs.

Woodwork for Public Buildings.

A catalogue of "Mastercraft" woodwork has been issued by Libraco, Ltd., to draw attention to the merits of their furniture and fittings for public buildings. All classes of office and other equipment are illustrated *in situ*, and give a very fair indication of the great scope of Libraco work. A copy is obtainable from the company at Charlton, S.E.7.

A Machine Tool Catalogue.

Messrs. George Cohen, Sons, and Co., Ltd., issue from Park Royal-road, North Acton, N.W.10, a catalogue showing their stock of machine tools. All classes of plant are shown, and every machine is guaranteed to be in first-class condition throughout. Other catalogues dealing with their stock of power plant, electrical plant, contractors' and chemical plant, and tubes and fittings are also available upon request.

Stove for Cooking and Heating.

The National Radiator Co., Ltd., issue particulars of a new type of "Ideal Cookanheat," the No. 30, just placed on the market. This has boiler power equal to that of the No. 20, but a somewhat smaller oven, and is of less expensive construction. It is regularly listed in vitreous enamel finishes, and measures only 36 in. long, overall. At a small extra charge a gas attachment can be supplied for heating the oven and top-plate when no fire is available, or is too low for the purpose. An enamelled plate-rack and splash-back can also be supplied. Details are obtainable from the company, at Hull.

Sheet Metal Bunkers.

Builders of small and large houses, pavilions, and all buildings where coal is used, will be interested in galvanised iron bunkers as a means of storing coal. These bunkers are manufactured in galvanised iron from 24 gauge upwards, and can be finished in brown enamel or any other colour if desired. It is claimed for them that their cost is considerably less than wooden or brick-built structures. Details of these, and of the double-section coal-and-coke bunker, can be obtained from Mr. John Wormell, 351b, Station-road, Forest Gate, E.7.

A Small Full-Revolving Excavator.

Messrs. Ransomes & Rapier, Ltd., of Ipswich, have recently added a new small full-revolving excavator to their range, the silent-type "430." This machine, which has a full ½ cub. yd. bucket capacity, has many new features hitherto only to be found in large machines. In common with all the "R. and R." range of excavators, the well-known cast-steel construction forms the foundation of the machine and ensures a trouble-free life even when digging under the most arduous conditions. Publication No. 313 gives details of the many special features embodied in the new silent-type "430," and may be obtained upon request.

Warming the Theatre.

The current issue (No. 218) of "A Thousand and One Uses for Gas" describes and illustrates the scientific means by which some of our best theatres are warmed and ventilated; how the air is cleaned before it passes into the auditorium; and how the temperature is controlled. It contains, in addition, particulars of other large buildings—museums, churches, shops and the like—and the methods adopted for heating them. This book contains information of practical use to heating engineers, to the management of theatres, and to architects, builders and all who may be concerned in the heating and ventilation of large buildings. The book can be obtained, free of charge, on application to the Secretary, the British Commercial Gas Association, 28, Grosvenor-gardens, S.W.1.

Cement Products.

The Cement Marketing Company, Ltd., issue from Portland House, Tothill-street, S.W.1, two booklets relative to cement products. The first, entitled "The Value of Snowcrete Stucco," contains some excellent plates of various surfaces obtainable on "Snowcrete" stucco. "Snowcrete" is obtainable in two shades of cream, and the resulting stucco, besides enhancing the appearance of the building to which it is applied, provides an excellent weatherproof medium for walls. Directions for obtaining each surface are given. The second booklet refers to a "Report on Concrete Road Construction in the British Isles," and is designed to afford definite proof of the general acceptance of concrete as a complete road material. The statistics, most useful to any roads surveyor, are compiled from figures submitted by engineers and surveyors throughout the country. It is a fact not without significance that the annual mileage of concrete road laid in the British Isles has grown from 182 miles in 1926, to 1,540 in 1931. Either, or both, of these booklets is obtainable upon request.

The Decorative Treatment at Stratford.

The treatment of the walls and ceiling of the auditorium of the Shakespeare Memorial Theatre was chosen, we are informed, for a particular purpose—to lead the eyes of the audience to the stage without interruption by colour or projection. The walls are therefore finished in a mottled blue and white, which, from the auditorium, gives a neutral grey effect that is neither cold nor yet bright. This has been obtained by using Nobel enamel paint undercoats and applying over them a special oil glaze which gives a satin finish neither reflecting the light nor absorbing it unduly. To protect and decorate the iron window casements, gutters and pipes, etc., Dulux has been chosen. All the decorative finishes for the auditorium, restaurants, crush halls, entrance halls, etc., were supplied by Nobel Chemical Finishes, Ltd., of Slough, Bucks, and the decorations were carried out by the Cellulose Paint and Spraying Co.

Board Mills Development.

The Thames Board Mills, Ltd., the manufacturers of "Essex" board and pioneers in this country of fibreboard packing-case manufacture, announce that contracts have been placed for additions to plant and premises involving an expenditure of approximately half a million pounds. A large new machine house is being erected and part of the existing factory remodelled. The architect is Mr. J. Lomax Simpson, Union House, St. Martin's-le-Grand, E.C.1, and a contract has been placed with Messrs. Holland and Hannen and Cubitts, Ltd., 1, Queen Anne's-gate, S.W.1. The contracts for the machinery are being placed in this country, and will engage a considerable volume of employment. Messrs. Charles Walmsley and Co., Ltd., of Bury, are constructing the new board machine, which it is believed will be the largest of its kind in the world, with an output of many hundreds of tons a week. When the projected extensions are completed, it is estimated that the total output of the mills will be between four and five thousand tons of board a week, and Purfleet's position as an industrial centre, which the Thames Board Mills, Ltd. have done much to establish, will be enhanced.

TENDERS

Communications for insertion under this heading should be addressed to "The Editor," and must reach him not later than Tuesday evening.

* Denotes *accepted*.
† Denotes *provisionally accepted*.
‡ Denotes *recommended for acceptance*.
§ Denotes *accepted subject to modifications*.
¶ Denotes *accepted by H.M. Office of Works and H.M. War Office*.

Aberdeen.—Group of shops at the corner of School-road and King-street, for the Northern Co-operative Society, Ltd. Messrs. Tawse & Allan, architects, 10, Bon-Accord-square :—

Mason work—*Trustees of the late Geo. Hall, Back Hilton-road.
Joiner work—*Alex. Hall & Son, 21, Mid Stocket-road.
Steelwork—*George Bisset & Son, 12, Sugar-house-lane.
Slater work—*Charles Maitland & Son, 171a, Union-grove.
Plaster and tile work—*James Scott & Son, Ltd., 485, Union-street.
Plumber work—*John Dean, 32, Queen-street.
(All of Aberdeen.)

Aberdeen.—12 houses at Cairnery-road. Mr. Edwin L. Williamson, architect, Union-street :—

*John Bisset & Sons, Ltd., North Esplanade, Aberdeen.

Ayr.—Housing for (1) Girdle Toll site, Stanecastle, Irvine, 60 houses, and (2) Tarbolton, Town House site, 8 houses, for the C.C. Mr. William Reid, County Architect, 14, Wellington-square, Ayr. Quantities by Messrs. Robert Amour, measurer, Kilmarnock (Girdle Toll site); Messrs. Campbell & Scott, measurers, Ayr (Tarbolton site) :—

Girdle Toll—	
Builder—	
*Jas. Anderson, Irvine	£6,586 16 6½
Joiner—	
*Anderson & Innes, Kilmarnock	5,178 19 8½
Glazier—	
*Geo. G. Kirk, Ltd., Kilmarnock	145 0 0
Slater—	
*David Brown, Stewarton	1,640 16 11
Plumber—	
*James Small, Paisley	2,280 14 4½
Plasterer—	
*William Shaw, Irvine	1,788 4 5
Electrician—	
*Peter Geddes, Beith	1,096 17 10
Painter—	
*Wm. N. Spence, Ayr	464 8 7½
Fencing (iron)—	
*A. & J. Main & Co., Ltd., Glasgow	496 12 11
Fencing (wood)—	
*Jas. Main, Ltd., Kilwinning	217 18 9
Steel windows—	
*Crittall Mfg. Co., Glasgow	217 18 9
Tarbolton site—	
Builder—	
*Thos. McWhirter & Son, Prestwick	2,224 0 3
Joiner—	
*Anderson & Innes, Kilmarnock	1,170 11 5
Glazier—	
*A. S. Wright & Co., Ayr	36 3 8
Slater—	
*Andrew Ballantyne, Ayr	438 10 6
Plumber—	
*Thos. Porter & Son, Ltd., Glasgow	533 3 10
Plasterer—	
*Wm. Shaw, Irvine	453 1 5
Electrician—	
*Peter Geddes, Beith	126 2 0
Painter—	
*Wm. N. Spence, Ayr	109 14 5
Fencing—	
*Q. McMillan, Ayr	131 10 2

Bakewell.—Village hall, for the Dethick, Lea and Holloway Village Hall Executive Committee :—

*Smith & Son, Crich, Matlock.

Barnstaple.—Eight non-parlour type houses at Braunton and two non-parlour type houses at Gunn, Swymbridge, for the R.D.C. :—

Eight houses, Braunton—	
*J. Dennis & Son	£2,384
Two houses, Gunn—	
*J. Dennis & Son	656

Batley.—Ten houses in Laurel-drive, for the T.C. Mr. H. J. Hall, Borough Surveyor, Brunswick-street :—

Masonry—*G. W. Aveyard.
Carpenter and joiner—*H. Taylor.
Plumbing and glazing—*Walshaw and Wood.
Slating—*J. M. Thornton's Sons.
Plastering—*A. Greenwood.
Electrician—*J. Terry.
(All of Batley.)

Beaconsfield.—House in Wilton-road. Messrs. Burgess, Holden & Watson, architects :—

*Turnbull & Son, 9, Northumberland-alley, Fenchurch-street, E.C.3.

Birkenhead.—Additions to works in Chester-street, for Messrs. Wilmer Brothers & Co., 62 to 68, Chester-street. Messrs. Rees & Holt, FF.R.I.B.A., architects, 64, Rodney-street, Liverpool:—

*G. P. Snape & Sons, Birkenhead.

Birmingham.—Alterations to the Springfield Institute at Hall Green, for Building Committee of Springfield Social Club at Solihull-road. Mr. A. G. Anderson, architect, 23, Warwick-road, Spark Hill:—

*John H. Parsons, Birmingham.

Birmingham.—New shopfront at premises at the corner of Newtown-row and Inkerman-street, Aston:—

*A. Edmonds & Co., Ltd., Constitution-hill, Birmingham.

Birmingham.—Garage premises in Wakefield-road and Oxford-road, Moseley:—

*Maddocks & Walford, Tyburn-road, Erdington, Birmingham.

Birmingham.—Additions to 1644, Coventry-road, South Yardley, for Messrs. W. Freeman & Sons:—

*A. Hemming, Coventry-road, Yardley, Birmingham.

Birmingham.—Extensions to the garage premises in Coventry-road, Hay Mills, for Messrs. Burgess & Garfield:—

*J. Frederick Briley, Hay Mills, Birmingham.

Blackpool.—Buildings, for the Co-operative Society, Ltd., Sheppard-street:—

*H. Joyce & Sons, Ltd., St. Annes-on-Sea.

Blore Heath (Staffs).—Six pairs of semi-detached houses at Loggerheads and Almington, for the R.D.C. Mr W. E. Hind, architect, Trinity-buildings, Hanley, Stoke-on-Trent:—

*R. Healey, Market Drayton.

Bolton.—Memorial hall in Lonsdale-road, for the Trustees of St. Margaret's Church. Mr. Frank R. Freeman, L.R.I.B.A., architect, 21, Wood-street:—

*S. Porter, Bolton.

Bootle.—22 houses at the corners of Bailey-drive, Orrell-lane and Park-lane, for the T.C.:—

*Henry Boot & Sons, Ltd. (Sheffield) £9,221 0 6

Bradford.—Engine house at Fieldhead Mills, for Messrs. J Smith & Sons, Ltd. Messrs. Moore & Crabtree, architects, Queensgate:—

*J. Moulson & Sons, Ltd.

Bray.—Ten new baths at the hot sea baths, for the U.D.C.:—

*A. E. Dunne & Son £544

Cardiff.—Bridge under Taff Vale line near Whitchurch Station, for the G.W.R. Chief Engineer, Paddington Station:—

*E. J. Smith & Co., 48a, Talbot-street, Cardiff.

Carlisle.—Wiring for electric light in the 230 houses being erected at Botcherby, Raffles, Currock, and the Old Greystone, for the T.C.:—

*W. Batey & Sons.
*R. M. Hill & Sons.
*J. Queen.

Carnwath.—Houses, for the Lanarkshire C.C. Mr. Peter Smith, architect, Clydesdale-street, Hamilton:—

Excavation, brick and mason—*J. & J. Baxter. Whitelees-road, Lanark.
Joinery, carpentry and ironmongery—*D. & W. Nimmo, Main-street, Wishaw.
Plumber—*Duncan Johnstone, Waterside-street, Strathavon.
Plaster—*W. Black, Hill-street, Wishaw, Motherwell.
Slater—*P. White & Co., Ltd., Pant-street. Parliamentary, Glasgow.
Electric lighting—*David Henderson, 85, Great Western-road, Glasgow, W.
Painter—*John Scott & Co., Decorators, Lanark.

Chryston.—Reconstruction and extension to the Chryston Higher Grade School Mr. John Stewart, architect, Albert-street, Motherwell:—

*Lanarkshire Works Department, Motherwell.

Coleshill.—Nurses' hostel in Coventry-road, for the Trustees of Father Hudson's Homes for Homeless, Abandoned and Suffering Catholic Children. Mr. G. Bernard Cox, F.R.I.B.A, of Messrs. Harrison & Cox, architects, 109, Colmore-row, Birmingham:—

*C. Green & Son, Birmingham.

Dartford.—Houses, for the R.D.C.:—

Scheme No. 7 (28 houses)—

Friday & Sons, Northend	£11,570 0
Brown & Middleton, Ealing	10,736 0
Staples & Harvey, Bexley	10,598 10
W. W. G. Parker, Ongar	10,490 0
Bennett Bros., Letchworth	10,120 0
V. G. Selwood & Co., Chelmsford	9,784 0
W. F. Blay, Ltd., Dartford	9,432 0
David Kenn & Sons, Bexley	8,611 18

Scheme No. 8 (16 houses)—

Staples & Harvey, Bexley	6,682 10
Brown & Middleton, Ealing	6,534 0
W. F. Blay, Ltd., Dartford	6,336 0
V. G. Selwood & Co., Chelmsford	5,840 0
Bennett Bros., Letchworth	5,762 0
David Kenn & Sons, Bexley	5,356 7

Daventry.—Three pairs of non-parlour type houses and sewerage at Drayton, for the T.C. Mr. J. B Williams, architect, The Moot Hall:—

*J. W. Bugwell, Brixworth £1,984

Davyhulme.—Development of Woodlands estate and erection of 361 houses and construction of a 60 ft. town planning road:—

*T. H. Mitchell, Davyhulme, Urmston.

Dewsbury.—Provision and fitting of shop windows and fronts in connection with the gas showrooms in course of erection on the Flat Iron site, for the T.C.:—

*G. Blakey & Son, Wakefield £330

Dublin.—Public lavatories, for the County Board of Health:—

*P. Bissett & Son £165

Dundee.—Houses on Lawton estate, for the T.C. Mr. David McLay, City Architect:—

Excavation, brick and mason—
*Chas. Dick & Son, Dick-street, Monifeith £8,984

Glazier—
* William Cameron, Constitution-street £257

Plaster—
*D. MacDonald, 115, Lockie-street ... £1,870

Joinery, carpentry and ironmongery—
*Alex. Bruce & Sons, Clipington-road £5,797

Slating and rough-casting—
*John Huser, 1, Urquhart-street £1,496

Plumber—
*Jas. Robertson & Son, 115, Princes-street £2,403

Electricity installation—
*Stephens & Co. £507

(All of Dundee.)

Ealing.—House and garage at Rosehill-gardens, for Dr. E. Alderson—

*Caruthers, Hine & Smith, Kenmo House, Kenton-road, Kenton.

Ealing.—Additions to 10, Liverpool-road, for Mr. C. Honor:—

*J. B. Barnes, 267, Gunnersbury Park, Popes-lane, W.5.

Ealing.—Conversion into flats of No. 39, The Avenue, for Mr. D. Hendeles:—

*G. Swinden & Co., Ltd., 1, Landseer-road, N.19.

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Ealing.—Rebuilding of sheds at rear of factory, for Messrs. H. J. Heinz Co., Ltd.:—

*E. H. Burgess, Ltd., 20, Grosvenor-gardens, S.W.1.

Ealing.—Conversion into flats of 100, Sydney-road, for Mr. W. Rodgers:—

*A. J. Selway, 7, Windsor-road, Ealing.

Ealing.—House at Brent Lodge Park, for the T.C.:—

Davis & Co., Hanwell	£1,800 0
Walter Rands, Highgate	1,589 0
Walker (Tooting), Ltd.	1,488 0
Hopkins & Sons, Gravesend	1,470 0
Cressey Bros., Chiswick	1,440 0
W. S. Try, Uxbridge	1,397 0
Poole & Saunders, Tooting	1,376 0
Pascall & Son, Ltd., Hammersmith	1,369 0
T. Milliman, Ealing	1,368 0
J. W. Wright, Ltd., South Norwood	1,275 0
Cain & Co., Hounslow	1,273 15
Hoad & Son, Wembley	1,250 0
W. J. Dickens, Ealing	1,235 0
E. J. & P. Bower, Barnet	1,206 0
Evan Thomas & Sons, Hanwell ...	1,176 0
Hawkins & Co., Streatham	1,120 0
A. E. Brown, Ealing	1,099 5
Greenway & Son, Peckham	1,090 0
*Carter & Carter, West Drayton ...	886 13

(Subject to sanction by M.H.)

Eccles.—Alterations at 119 and 121, Liverpool-road, for the Britannic Assurance Co., Ltd., Broad-street, Birmingham. Messrs. Cruickshank & Seward, FF.R.I.B.A., architects, 18, Booth-street, Manchester:—

*Brew Brothers, Cadishead, near Manchester.

Edinburgh.—Installation of electric lighting in the following dwelling-houses: (*a*) 216 dwelling-houses at Saughton (golf course) housing area, development No. 3, and (*b*) 102 dwelling-houses at Saughton (golf course) housing area, development No. 4, for the T.C.:—

*R. Edgar & Co., Constitution-street, Leith.

Edinburgh.—12 houses at Restalrig-road, for the T.C. Mr. E. J. MacRae, A.R.I.B.A., City Architect:—

Mason and brick—*J. Turner & Co., Westfield-street, Edinburgh.
Carpenter and joiner—*Andersons (Motherwell), Ltd., Motherwell.
Plumber—*Hugh Twaddle & Son, Ltd., York-place, Edinburgh.
Slater—*Geo. Riddell, Ltd., Roxburn-street, Edinburgh.
Plaster—*Wm. B. McNair, Armadale.
Glazier—*Wm. Marshall, Morrison-street, Edinburgh.
Painter—*D. & J. Stoddart, Duke-street, Leith.

Edinburgh.—For (*a*) additions and alterations forming new garage and workshops at lighting and cleansing depot, King's Stables-road; (*b*) alterations to heating installation and new drainage at Craigleith Hospital, for the T.C. Mr. E. J. MacRae, A.R.I.B.A., City Architect:—

(*a*)—

Mason—	
*Wm. Black & Sons, 150, Dundee-street	£926 0 0
Joiner—	
*J. Morrison, Cawburn, Pumpherston	381 4 3
Plumber—	
*Hugh Twaddle & Son, Ltd., 53, York-place	159 19 10
Steelwork—	
*Redpath, Brown & Co., Ltd., Albion-road	486 18 9
Plaster—	
*John Baird & Son, E. London-street	243 5 6
Slater—	
*P. Kelly & Sons, 129, Montgomery-street	38 6 3

(*b*)—

All trades—	
*Colin Macandrew & Marshall, Ltd., 6, West End-place, Edinburgh	7,303 3 0
Piping and engineering work—	
*Charles Ritchie & Co., Ltd., 32, Torphichen-street, Edinburgh...	1,845 8 11

Folkestone.—20 non-parlour type houses in the Hill-road housing estate, for the T.C. Mr. E. L. Allman, Deputy Borough Engineer:—

*Streek & Co., 63, Tranquil-vale, S.E.3... £6,237

Gartsherrie.—Concrete wall and iron railings at Gartsherrie Academy. Mr. John Stewart, architect, Albert-street, Motherwell:—

*Lanarkshire Master of Works Department, Motherwell.

Glasgow.—Offices and showrooms at Crow-road. Mr. J. Boyd, architect, 79, West Regent-street:—

*W. S. Gordon, 104 to 106, Crow-road, Partick, Glasgow.

Glasgow.—Reconstruction at Dundonald-road. Mr. James Aitchieson, architect, 170, Hope-street:—

*G. Laird & Co., Keir-street, Brigdeton, Glasgow.

Galway.—Reconstruction of County buildings at Prospect Hill, for the C.C.:—

R. McDonald	£8,849
P. Dooley	8,790
McNally & Co.	8,779
J. J. Geraghtey	8,772
R. Colhoun, Ltd.	8,412
J. Stewart	8,145
W. O. Flaherty	8,125
*Thos. Kennedy & Sons	7,883

Glossop.—Reconstruction of branch premises at Dinting, for Glossop New Industrial Co-operative Society, Ltd., 2, Railway-street. Plans in Architects' Department, Co-operative Wholesale Society, Balloon-street, Manchester:—

*Middleton Brothers, Glossop.

Heywood.—Alteration and conversion of the hall into three houses, for the T.C. Mr. G. G. Bouchier, Town Clerk:—

*Parker & Calvert, Heywood.

Hinckley.—Factory and arcade of shops in Regent-street, for Messrs. Atkin Brothers. Messrs. Symington, Prince & Pike, F.R.I.B.A., architects, 1, West-street, Museum-square, Leicester:—

*J. Chapman & Sons, Ltd., Leicester.

Kilkenny.—25 working-class houses, for the Corporation:—

*Ennis Bros., Mullingar £6,442

Leeds.—Lavatory accommodation at the Banking Premises in Park-row, for Messrs. Martins, Ltd. Messrs. Kitson, Parish, Ledgard & Pyman, architects, Lloyds Bank-chambers, Vicar-lane:—

*Armitage & Hodgson, Ltd.

Leeds.—Boundary fences in connection with the Gardens of Rest at the junction of Merrion-street and Wade-lane:—

*S. Flockton.

Leeds.—House and shop at the junction of Lodge-lane and Beeston-hill:—

*C. Higgins.

Leicester.—Church hall at Uppingham:—

*T. A. Dorman, Adderley-street, Uppingham.

Lewes.—18 houses in Neville-road, for the T.C. Mr. C. T. Butler, Borough Surveyor:—

W. Llewellyn, Eastbourne	£9,500	0	0
Durrant Bros., Uckfield	8,955	0	0
J. D. Williams, Bexhill	8,315	17	0
W. W. G. Parker, High Ongar	8,210	0	0
A. Clare, Ltd., Worthing	7,823	0	0
C. Pannett & Son, Ltd., Lewes	7,475	11	0
A. Saunders, Brighton	7,443	0	0
*W. H. Green & Sons, Trafalgar-road, Portslade	6,690	14	10

Lichfield.—New lecture hall in Frog-lane:—

*J. Richard Deacon, Lombard-street, Lichfield.

Llanguniio.—School buildings at Bryn, for the E.C. Mr. Rhys Jones, L.R.I.B.A., County Architect, Llandyssul:—

†Jones Bros., Maesllyn £4,265

London.—Tenders accepted by H.M.O.W. for week ended May 14:—

Leicester Employment Exchange—erection—Parsons & Morrin, Ltd., 133, Belgrave-road, Edgbaston, Birmingham.
Steel presses—Roneo, Ltd., 5, Holborn, E.C.
Portpatrick Coastguard Station, houses, etc.—J. M. Philp, Edinburgh-road, Stranraer.
St. Margaret's-at-Cliffe telephone repeater station—erection—Hammond & Co. (Canterbury), Ltd., 1, St. Peter's-lane, Canterbury.
Royal Mint, E.C.—painting—F. Troy & Co., Ltd., 194, Finchley-road, N.W.3.

London.—Repairing and exterior painting of Avenell-mansions, Highgate, for the Islington B.C. Housing Manager, Town Hall, Islington, N.1:—

Chas. B. Wood, Ltd.	£327	2	7
J. Winget (G. W. Eyers, proprietor)	323	0	0
A. E. Brown	275	15	0
Stoneley & Co.	272	0	0
W. G. Beaumont & Son	244	12	0
B. Alflatt & Sons	237	0	0
E. Proctor & Sons	235	0	0
Sprosson & Babb	228	12	0
T. Peppiatt & Sons	225	0	0
Franks & Simons, Ltd.	215	0	0
R. Cherry & Co., Ltd.	208	0	0
Buckingham & Sons	197	0	0
Hammond & Barr, Ltd.	195	0	0
Thurgoods (London), Ltd.	195	0	0
W. Bolt & Son, Ltd.	194	0	0
A. Porter & Co.	189	0	0
King & Stannard, Ltd.	188	0	0
Falkus Bros., Ltd.	180	0	0
Sykes & Son, Ltd.	180	0	0
A. Cheetham	179	0	0
Walker (Tooting), Ltd.	174	0	0
Bridges & Clarke, Ltd.	173	0	0
J. Nash & Sons	169	16	6
Pitts, Ltd.	160	0	0
J. Johnson	159	0	0
Moffatt Bros.	159	0	0
Walter Rands	155	10	0
Stevens & Sons	150	0	0
Chas. Berger	145	17	0
R. Woollaston & Co.	145	0	0
S. C. Grover	139	0	0
Ebenezer King (Builders), Ltd.	135	0	0
Thos. Cole (Barnsbury), Ltd.	127	0	0
Boyce & Co.	114	16	0
C. & T. Painters, Ltd.	98	0	0
‡F. Troy & Co., Ltd., 194-6, Finchley-road, N.W.3	98	0	0

London.—Sub-station in North End-road, for the Fulham B.C.:—

‡W. J. Marston & Son, 87, Wandsworth Bridge-road, S.W.6 ..... £396 10
(In lieu of previous tender.)

Manchester.—Extensions at Trafford-park, for the Liverpool Warehousing Co., Ltd.:—

Excavations and brick walls—*W. Hall & Sons, Liverpool.

Mansfield.—Mill premises in Rosemary-street, for Messrs. Harwood, Cash & Co., Ltd., Lawn Mills. Messrs. Aubrey Lane, Son & White, L.R.I.B.A., architects, Leeming-chambers, Leeming-street:—

*G. C. Percival & Son, Mansfield.

Mullingar.—Renovations at the Market House, for the T.C.:—

Jas. Doyle	£183
Chas Doyle	152
*C. Duffy	123

Newcastle-on-Tyne.—New premises in Prudhoe-street, for the Poor Children's Holiday and Rescue Association. Messrs. Cackett, Burns-Dick & MacKellar, architects, 21, Ellison-place, Newcastle:—

*J. R. Rutherford & Sons, Minories Joinery Works, Jesmond, Newcastle.

Newcastle-on-Tyne.—Alterations and improvements to Telfer's tobacconist premises. Messrs. Cackett, Burns-Dick & McKellar, architects, Ellison-place:—

*S. Buy, 224, Westgate-road, Newcastle.

Normanton (Yorks).—Eight houses at Dalefield:—

*J. H. Thorpe.

Plymouth.—Bowls pavilion and lavatories, North Down recreation ground, Devonport, for the T.C. Mr. J. Wibberley, City Engineer and Architect, Sun-buildings:—

*A. N. Coles (Contractors), Ltd., £349 10
Plymouth.

Pontefract.—Six houses in Spital Hardwick-lane:—

*C. Brunt.

Rawtenstall.—Extension of Dale Mill, Waterfoot, for Messrs. J. Butterworth & Son, waste spinners. Mr. Arthur Brocklehurst, F.R.I.B.A., architect, St. James'-chambers, Waterfoot, near Bacup:—

*P. Drake & Son, Ltd., Haslingden.

Repton.—Six pairs of houses at Findern, for the R.D.C. Mr. R. S. Litherland, 10, High-street, Burton-on-Trent:—

†J. H. Fryer, Derby £2,744

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Ramsgate.—Erection of Dame Janet junior mixed and infants' Council school for 650 places, for the T.C. Mr. E. Barber, L.R.I.B.A., architect. Quantities by the architect:—

James Longley & Co., Crawley	£28,951	0	0
R. J. Barwick, Dover	27,346	13	0
Chapman, Lowry & Puttick, Ltd., Haslemere	26,917	0	0
W. R. Lane & Son, Ltd., Coventry	26,847	7	2
G. E. Wallis & Sons, Maidstone	26,591	0	0
G. J. Attwood & Co., Ramsgate	25,983	0	0
Turner & Watts, Sandwich	24,610	2	10
J. T. May, Broadstairs	24,602	0	0
J. B. Sharman, Ltd., Ramsgate	24,561	0	0
F. D. Hidden & Co., Brentford	24,283	8	3
A. Ross & Co., Westgate-on-Sea	24,106	0	0
Grumant Bros., Ramsgate	24,065	7	0
The Ashford Builders' Co., Ltd., London	23,581	0	0
H. Newby, Ltd., Ramsgate	23,456	10	2
The Building & Public Works Construction Co., Swindon	22,812	19	2
Rice & Son, Ltd., Margate	22,581	0	0
E. W. Martin, Ramsgate	22,404	0	0
*W. W. Martin, Ramsgate (Subject to approval of M.H.)	21,690	0	0

St. Albans.—Hot water service at Hill End Mental Hospital, for the Herts C.C. Mr. J. Roger Preston, M.I.Mech.E., consulting engineer, 10, Talbot-mansions, Museum-street, W.C.1.:—

Ellis, Ltd., Kensington	£6,259
C. A. Christiansen, Southall	6,221
James Combe & Son, Welwyn Garden City	5,400
G. H. Robinson & Son, Derby	5,349
Fretwell Heating Co., Plaistow	5,349
William Freer, Ltd., London	5,223
William Freer (alt.), London	5,138
Norris Warming Co., London	5,069
‡Dilworth & Carr, Ltd., London	4,855

Salford.—Transformer sub-station building in Tully-street, for the T.C. Mr. L. Romero, Electrical Engineer, Frederick-road:—

*W. Gornall & Sons, Ltd., Salford £806

Skibbereen.—Strong room at the Town Hall, for the West Cork Board of Public Assistance:—

*Barry & Sons £199

Smethwick.—Church hall in Silverton-road, for the Parochial Council. Mr. G. Anderson, architect, 23, Warwick-road, Spark Hill:—

*S. Heatley & Son, Birmingham.

South Moor.—New R.C. church. Messrs. Kitching & Co., Ltd., architects, 21, Albert-road, Middlesbrough:—

*Kindred, Ltd., Westacres, St. Anthony's, Newcastle-on-Tyne.

Standish.—40 houses in Almond Brook-road, for the U.D.C. Mr. H. A. Smith, surveyor:—

*Clough & Gaskell, Wigan.

Stanley.—Alterations and additions to the Primitive Methodist Church and Sunday Schools. Mr. T. W. T. Richardson, F.R.I.B.A., architect, 57, High-street, Stockton-on-Tees:—

*Dixon Elliott & Sons, Sunderland-road, Durham.

Stockport.—For the Goyt Valley water scheme, for the T.C.:—

*David Thomson & Sons, Ltd., Carlisle £36,515

Stoke-on-Trent.—Pithead baths at Stafford Colliery, for the Miners' Welfare Central Fund Committee, Mines Department, Dean Stanley-street, Millbank, Westminster, London, S.W.1. Mr. J. H. Forshaw, A.R.I.B.A., architect:—

*T. Beighton, Chesterfield.

Stoke-on-Trent.—Temporary school with accommodation for 200 children, for the E.C.:—

*Palin Brothers, Stoke-on-Trent £696

Thornaby-on-Tees.—16 houses, for the T.C. Mr. Handel Kay, Borough Surveyor:—

*T. E. T. Whitear, 2, Harland-place, Norton-on-Tees.

Thornaby-on-Tees.—Extensions to Messrs. Pumphrey & Co. Messrs. Kitching & Co., architects, 21, Albert-road, Middlesbrough:—

*A. McLeod, Thornaby.

Thornbury.—Low-pressure hot water heating installation in the proposed new extension to the infirmary at Thornbury, for the Gloucestershire P.A.C. Mr. F. W. Davies, surveyor:—

Spry & Holman, Bristol	£817	18	0
Webb Bros., Stroud	816	18	0
G. Applegate, Trowbridge	811	18	0
T. B. Bradford, Bristol	781	18	0
Woodward & Co., Gloucester	774	13	0
Stephens & Finch, Cheltenham	768	11	6
Beaven & Sons, Gloucester	761	2	0
W. H. Blundell, Gloucester	756	18	0
Fretwell Heating Co., London	751	18	0
Bristol Heating Co., Bristol	749	18	0
National Heating Co., London	740	18	0
R. & C. Marshall, Cheltenham	725	10	0
J. Crisper & Sons, Bristol	706	18	0
C. P. Kinnell & Co., London	706	18	0
R. Woodyatt, Stroud, Glos.	676	3	0
D. Bentley, Leicester	671	18	0
Grant Engineering Co., Cardiff	659	8	0
T. Taylor, Tetbury, Glos.	656	6	6
Haden & Sons, Bristol and Trowbridge	646	18	0
Ashwell & Nesbit, Birmingham	636	18	0
Calor, Ltd., Paddington	636	18	0
A Scull & Sons, Bristol	597	0	0
†Brightside Foundry Co., Summerrow, Birmingham	578	18	0

Thrybergh.—Alterations and extensions to heating installation at Council school, for the West Riding E.C. Mr. A. Adcock, Divisional Clerk, Education Office, Godstone-road, Rotherham. Quantities by the West Riding Heating Engineer, County Hall, Wakefield:—

*C. Pearce & Sons, Ltd., 121, Petre-street, Sheffield.

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Thurnscoe.—Primary school at the Wesleyan Church, for the Trustees of the Wesleyan Methodist Connection. Messrs. Arthur Brocklehurst & Co., F.R.I.B.A., architects, Martin's Bank-chambers, 10, Norfolk-street, Manchester:—

*Thomas Jenkinson & Sons (Doncaster), Ltd., Doncaster.

Tonypandy.—Hall, at Pontyberem, for the Trustees of the Pontyberem Memorial Hall and Institute. Messrs. R. S. Griffiths & Partners, architects and surveyors, Tonypandy:—

*Benjamin Howell & Son, Ltd., Llanelly £5,680

Torry.—New church in Grampian-road, for the United Free Church (continuing). Mr. W. E. Gauld, F.R.I.B.A., architect. Quantities by the architect:—

Mason—*G. Hall, Black Hilton-road.
Carpenter—*R. & J. Reid, Ltd., 10, Albury-road.
Slater—*G. Currie & Co., 7, Gilcomston-park.
Plasterer—*Roger & Baxter, 7, Summer-street.
Plumber—*A. Taylor, 97a, Chapel-street.
Painter—*J. Mason & Son, 36-38, Queen-street.
Electric—*J. B. Reid, 20, Broomhill-road.
(All of Aberdeen.)

Warrington.—Showrooms and tramways office, for the T.C.:—

*Frank Berry, Wilderspool-road, Warrington.

Watford.—16 houses, for the R.D.C.:—

*J. H. Coombs.

Wednesbury.—Rebuilding front and structural alterations to the interior of the Springhead Wesleyan Church, for the Building Committee of the Wesleyan Authorities. Messrs. A. Brocklehurst & Co., architects, 10, Norfolk-street, Manchester:—

*J. & F. Wootton, Ltd., Walsall.
(Estimated cost £10,000.)

Wednesbury.—Installation of an accelerated hot water heating in the Springhead Central Hall and Church School buildings, for the Wesleyan Authorities. Messrs. A. Brocklehurst & Co., F.R.I.B.A., architects, 10, Norfolk-street, Manchester:—

*Charles Manton & Son, Walsall.

Welwyn.—Extensions to the factory, for the Murphy Radio. Messrs. A. W. Kenyon and L. de Soissons, architects:—

*Welwyn Builders, Ltd.

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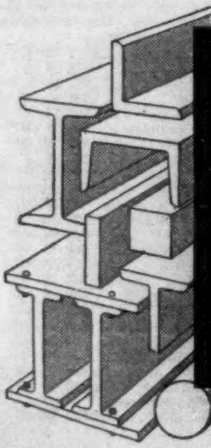

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